

**A
TEXT BOOK
OF
GENERAL
STUDIES**

VOL. I

H.L. LUTHRA

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Prepared in accordance with the latest syllabus prescribed by Central Board of Secondary Education New Delhi for Class XI for Delhi & All India Senior Secondary Certificate Examinations.

A TEXT BOOK OF GENERAL STUDIES

Vol. I

By

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DELHI IN GENERAL STUDIES FOR CLASS XI**

Unit I — Science, Technology and Society

1. Application of Science in Everyday Life
2. Emerging Technologies
3. Abuse of Science and Technology

Unit II — Understanding Social Structure

1. Important features of Indian Society
2. Social tensions arising out of multilinguism, multi-religious nature, multi-culturism.
3. Socio-economic discriminations—rural, urban; status of women, castes system etc.

Unit III — Protection of Environment

1. Different types of pollutions
2. Depletion of natural resources
3. Importance of ecological balance.

Unit IV — National Unity

1. Different types of unities—geographical, political, economic and cultural.
2. Unity in diversity of religions
3. Unity in diversity of languages.

Unit V — International Understanding

1. Importance of Peace
2. Importance of economic cooperation
3. International forums of cooperation.

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UNIT I - General Introduction

UNIT II - The Development of the American Economy
UNIT III - The American Economy in the World

UNIT IV - The American Economy in the Future
UNIT V - The American Economy in the World

UNIT VI - The American Economy in the Future
UNIT VII - The American Economy in the World

UNIT VIII - The American Economy in the Future
UNIT IX - The American Economy in the World

डा० हरमजन सिंह सिंघा

अध्यक्ष

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CHAIRMAN

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CENTRAL BOARD OF SECONDARY EDUCATION

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FOREWORD

The Central Board of Secondary Education has introduced a new curricular area called General Studies at the Senior Secondary stage. It has done so with effect from 1989 in all schools affiliated with it (from 1988 in all Kendriya Vidyalayas). The subject is new and innovative in both its content and approach. Teachers must, therefore, understand its spirit so that they may do justice to it.

The major objective of General Studies is to give fullness and balance to student's personality through the inculcation of cherished Indian values and the awareness about his environment—social, political and economic—so that he could exist and operate in society as a healthy citizen. The focus, therefore, is more on developing positive attitudes and values among students rather than giving them lot of information and statistics. As such, the course is expected to be built on the foundations already laid at the secondary stage. It is supposed to be woven around the values identified in the National Policy on Education, 1986.

Since the subject is new, teachers will have many questions and doubts. I am happy that the present book tries to delineate the course for the benefit of students and teachers. Written as it is in a simple and lucid style, it will be a good tool for both of them. I am sure, it can act as a springboard for discussing national and international issues and these discussions can become the medium for developing proper attitudes.

As teachers are aware, General studies is meant to be evaluated internally by the schools. This imposes an additional responsibility on them for organizing both its teaching and evaluation on right lines. I would like the teachers to encourage participatory discussions and project method for the teaching of the subject to retain the effective

domain in proper focus. For evaluation also, they are advised not to depend just on paper-and-pencil tests. They should devise socio-metric techniques and observational methods to arrive at the grades on a nine point scale as prescribed by the Board.

With the publication of this book, a good beginning has been made in giving shape to the concept of General Studies. Let it also sow the seeds for right approach to its teaching.

NEW DELHI

H.S. SINGHA

PREFACE

The first edition of this book entitled 'A Text Book of General Studies' published in 1989 was based on the combined syllabus for Classes XI & XII on the subject. Now the CBSE has bifurcated the syllabus for XI & XII Classes and quite a few significant additions have been made to the subjects already covered in the book. They include International Understanding and Universal Peace, Important Features of Indian Society, Science and Economy, Science and Religion, Social Inequalities, Democratic Living, Great Leaders, Human Rights etc. The book has now been published in two volumes.

I have set the contents as per the new syllabus and also taken the liberty of dealing with certain subjects more exhaustively giving background where felt necessary, in order to facilitate better understanding of issues involved in each topic.

It appears relevant to mention that some of the subjects proposed to be covered in Class XI and Class XII are so closely inter-related that repetition of some ideas became inevitable but I have tried to avoid it to the extent possible by inviting the reader's attention to the matter covered elsewhere in the book.

When the first edition was published in the middle of 1989, it got exhausted in a few months. A reprint had therefore to be brought out. I earnestly hope that since the present volumes brought out separately for Classes XI & XII, meet fully the specifications laid down by the board, they would be found entirely satisfactory by the students as well as teachers who would receive it in the same way in which they had welcomed the first edition.

I am sure that the candidates preparing for various competitive examinations will also find the book interesting and useful, since it deals with practically all subjects of topical interest in an exhaustive manner.

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H.L. LUTHRA

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INTRODUCTION

India attained freedom from British rule in 1947 and it ushered in a new era in the country. Pt. Jawaharlal Nehru, the first Prime Minister of free India and other leaders realized that in order to make freedom meaningful to the people, it was necessary to improve the quality of their life. Accordingly, the Government adopted a planned approach for improving the country's economy and sharing the economic progress with the people.

India has made remarkable progress in various fields since the attainment of freedom. Today nearly 90 per cent of children in the age group of 6 to 11 years have schooling facilities as against 33 per cent in 1951. The number of university students has increased nine times over the same period. The literacy rate now is about 40 per cent as compared to 16 per cent in 1950. There was practically no provision for scientific and industrial research prior to the attainment of independence. The country now has 30 national laboratories and over 200 other laboratories and research institutions.

In the matter of peaceful applications of nuclear energy and also in the field of space technology, India has made rapid strides after gaining independence. Our country has joined the five nation space club and the satellites put into orbit by her, are helping the nation to promote developmental objectives in mass communication and education and survey and management of the country's natural resources. In the field of electronics too, the country has made commendable progress.

Industry has also registered phenomenal growth since independence. Today India is considered among the first dozen countries of the world in industrial production. She leads other countries in the production of cotton yarn and is among the top countries producing scooters, coal, sugar, rayon, cement, fertilizers, etc. Electrical power generation has increased from 1.9 million kws in 1947 to over 300 million kws; and almost 50 per cent of India's more than 500,000 villages have been electrified leading to rural prosperity. Similarly, most of the villages in the country have been connected by roads with cities and towns. Our railway system is the largest in Asia and the 4th largest in the world.

Agriculture is another field in which we have made excellent progress. The green revolution in the country, universally recognised as a remarkable achievement, has transformed India, once deficit in food, into self-sufficient in food production. This has been made possible by increasing the irrigation facilities, large scale use of fertilizers and pesticides and, of course, through a continuous process of agricultural research.

It would be relevant to mention here that our country stands third largest in the world—next to USSR and USA—in the number of scientists and technicians.

Life expectancy of an Indian has risen from 32 to over 59 years since independence. Infant mortality has decreased from 155 to 130 per thousand. Small pox has been totally eradicated, malaria considerably controlled and incidence of tuberculosis substantially reduced during this period. India today has well-established drug manufacturing industry which is the largest and most modern among the developing countries.

This briefly sums up India's progress since independence. The record of our achievements is no doubt impressive but we cannot ignore the fact that in quite a few

significant spheres, the country has failed to achieve the approved targets and in many respects, we as a nation have fallen short of our expectations. For example, even after 43 years of attainment of independence, majority of our people continue to be illiterate and it is feared that by the turn of the century, the number of illiterates in India will account for more than half of the total population of illiterates in the world. We have failed to provide free and compulsory education for all children up to the age of 14 years even though a constitutional provision enjoined upon the State to endeavour to complete this task by 1960. This target has since been repeatedly revised and now it is 1995.

Mass unemployment and under-employment continue to be India's chronic problems. The per capita income of a vast majority of Indians is still very low and consequently the number of people below the poverty line is still frightening. The benefits of industrial and economic development have not percolated to lower strata of society in equal measure. As a result, the few rich have become richer and the sizable number of poor, poorer.

The one single factor that has been responsible for offsetting the progress made in universal primary education, reduction of illiteracy and the raising of general standard of living of the common people, is uncontrolled growth of population in our country. Actually, rapid population growth and development of a country act and react on each other and in this race between the two, the latter is always the loser ; and it is a known fact that the Government-sponsored family programmes in our country have had a very limited success for a variety of reasons which we shall discuss later.

We have not done too well in the matter of protection, preservation and promotion of the environment. Of late, there has been indiscriminate destruction or pollution of human environment which is causing serious concern to all right-

thinking people. There is perhaps not sufficient realization of the fact that the environment fulfils the basic needs of all living beings to carry on their functions. Further, plants and animals including humans, live together in mutual interdependence and our measures to protect and preserve our animal and plant life and to keep our environment free from pollution which is absolutely essential for our healthy existence and future well-being, have not proved very effective.

There is another highly important aspect in which we Indians, as a nation have been found wanting. We have often allowed forces of reaction, communalism, religious and linguistic fanaticism, obscurantism, disintegration and social and modern degeneration, to play their dirty role. This has inhibited the growth of our people into a progressive, secular, vibrant and united nation. The values and principles for which Gandhiji, the Father of our nation had lived and laid down his life, do not inspire respect in many people today. Violence reigns supreme in parts of our country. Communal riots flare up without any tangible provocation and wide spread corruption continues to vitiate political and social life of the people. The caste system dominates the thinking of many of our countrymen and reinforces social inequality. The evil practice of sati which Gandhiji had termed as "barbaric practice developed out of superstitious ignorance", and other social evils like child marriage and untouchability have still sizable number of protagonists in the country. Many forms of male chauvinism impinge upon the equality of sexes and dignity of women.

It is high time that while striving for the economic, social and cultural development of people, we also pay serious attention to these issues which have a bearing on the well-being and future of our country. It is precisely with these considerations in view that in the sections that follow, we have analysed and discussed in detail the problems relating to

national unity, democracy and socialism, adult literacy, inculcation of respect for basic human values, our constitutional obligations, history of India's freedom struggle, our cultural heritage, protection of the environment and population control.

We earnestly hope that a study of these subjects would promote among our young readers, respect for moral, social and cultural values and a better understanding and appreciation of the factors that can help in the solution of problems of corruption, socio-economic disparities, religious fundamentalism etc., and thereby contribute to the strengthening of progressive, democratic, secular and cohesive forces in the country.

QUESTIONS

1. Give an account of India's achievements during the post-independence period.
2. Which are the areas in which India has not done too well ? What are the major factors which have inhibited India's progress in these fields ?



UNIT I

SCIENCE, TECHNOLOGY AND SOCIETY

"Science has changed the face of the earth and the world has changed more during the last 150 years than during 400 years previous to that."

—Bertrand Russel

"Science and technology with their amazing advance, had put into the hands of man, means that can be applied alike to the creation almost of heaven on earth or to the total annihilation, if not of all life, at least of all civilization."

—Dr. Zakir Hussain

1. IMPACT OF SCIENCE ON SOCIETY

We live in the age of science. Science and technology have changed the course of world history and has brought about complete transformation in the lives of people. The discovery of gun power during the 15th century was perhaps the earliest technological achievement. It led to the possession of artillery by the kings and made them powerful enough to subdue rebellion from any quarter in their kingdoms. This also helped in establishing order and respect for law and lent stability to the governments. The authority of the State has since been on the increase as the technological progress over the years has placed far more deadly and sophisticated weapons in their arsenals.

The invention of the Mariner's compass was equally important. It made sea voyages safer and more purposeful and facilitated access to new countries. This led to discovery of new lands. The discovery of the route to the East, round the Cape of Good Hope, made it possible for the British colonists to come to India and subsequently subjugate it. The Mariner's Compass also enormously increased the sea power of the western European countries, who with the help of their superior naval strength, came to dominate large parts of the world.

Then came the age of steam and the industrial revolution which in view of the then prevailing circumstances, made life miserable for large masses of downtrodden people both in England and America. Cotton mills were the most important outcome of industrialization. In England, rural labourers were obliged to move to the towns as a result of the Government's anti-labour policies. The cotton mills in urban areas found that the young children of destitute migrants from rural areas were source of cheap and easily available man power. The rich mill-owners made these children work from twelve to sixteen hours a day and when out of sheer exhaustion, they felt sleepy, they were beaten so that they could keep awake. A large number of handicrafts-men were also thrown out of work because of introduction of machines in these mills. The effect of industrialization was no less disastrous in the United States. Slavery was abolished in the northern and southern parts of the country in 1787. It was expected to be abolished also in the South soon thereafter. However in 1793, the invention of cotton gin enabled a negro to clear 50 pounds of fibre a day instead of only one previously. The white industrialists now required extensive cultivation of cotton to feed the cotton gins and this work could be done at little or no cost only by slave labour, particularly because the conditions in the cotton plantations in the deep south were highly unhygienic. This prospect was too tempting for the whites to

be thrown away by abolition of slavery in the South. The southern negroes, however, could not bear the torturous burden for a long time and this led to the civil war in the United States which certainly would not have occurred if the cotton industry had remained unscientific. Apart from this, India and Africa appeared to be ready markets for the cloth manufactured in UK and this proved a stimulus for the British imperialists to establish colonial rule in these countries and make huge profits through purchase of raw cotton from them at throw-away prices and supply of cloth produced by mills in U.K., at higher rates.

The evil effects of progress of technology and industrialization mentioned above, however, ceased in course of time. In due course, child labour was abolished in U.K., and the slavery in U.S.A. India gained freedom from British colonialism. The development of social consciousness and growth of democracy also did not permit the use of technological advances for the exploitation of people on a large scale.

Science and Development

The discovery of steam and oil and invention of electricity and internal combustion engine as potent sources of power, revolutionised the means of communication and transport. Electricity, to begin with, was used in the telegraph. This helped in speedier communication of messages, which in turn led to appreciable decrease in crime and more effective maintenance of law and order. Faster communications also strengthened the central control of governments over the provinces located at great distances. They also tremendously improved the working of many central organisations and agencies which had their branches spread far and wide. Broadcasting and wireless communications and more recently communication satellites have since completed the task begun by telegraph.

The discovery of oil in massive quantities in Middle East countries and parts of the Soviet Union have been providential windfall for these countries. Since oil is indispensable as the direct and most useful source of energy which is predominantly used for practically all means of conveyance and transport, including motor vehicles and aeroplanes, it has come to be termed as liquid gold. The major oil producing countries have become extraordinarily rich and their political importance today is out of all proportion, to their technical and industrial development.

The steam about which we have spoken earlier was a potent source of power and subsequently led to invention of steam engine which has been instrumental in driving trains, the most widely and effectively used means of transportation of men and materials. The steam engines, of course, are now being progressively replaced by electric engines.

The technique of printing and the subsequent invention of printing press during the 14th century has proved to be the most potent means of mass communication. The printing machines and printing processes have since been revolutionised and this revolution has been made possible by the successive use of steam, electricity and electronics. When the printed word was first invented, it was hailed as a device for emancipation from intellectual darkness. It has since changed the destiny of the world. The strength that lies hidden in a printed word, is sure to continue to play dominant role in the affairs of men, notwithstanding the subsequent discoveries of other powerful media like broadcasting, telecasting and other electronic communication systems.

Since science and technology have the potential of tackling some of the major socio-economic problems of a nation and constitute the single most powerful instrument of development in practically every sphere of human activity, they have come to be recognized as the biggest human enterprise and every country has been keen to import and

develop appropriate technologies and use them for the uplift and well-being of their people.

Science and technology are now being used for recovering and cultivating wastelands, in the possible greening of deserts and in the discovery of underground water and also oil and other minerals. They are also being progressively utilised for solving the gigantic problems of hunger, poverty, insanitation and illiteracy.

It was in this context that Jawaharlal Nehru, speaking about the problems faced by India had stated that, "It was science alone that could solve the problems of hunger and poverty, of insanitation and illiteracy, of superstition and deadening custom and tradition, of vast resources running to waste, of a rich country inhabited by starving people."

2. APPLICATIONS OF SCIENCE IN EVERYDAY LIFE

Science has completely revolutionised human existence. Its applications have become an integral part of our daily lives. There is hardly any sphere of our work which has not been influenced by science and technology. The changes brought about by them in our modes of living and thinking appear to us so natural and obvious today that we hardly notice them. We can, however, appreciate the role that science and technology have played in transforming our lives over the last two hundred years or so, if we recall the conditions in which we lived prior to the advent of science.

A person born a couple of centuries ago, could hardly hope to live on an average, beyond forty years of age. More than 50 per cent of children did not survive beyond infancy. People fell victims to a large number of diseases and quite a few did not recover, since no effective cure was known for cholera, diphtheria, small pox, tuberculosis and a host of others. As a result, when epidemics struck parts of the world,

people died in thousands like flies. Floods and famines which occurred not too infrequently also took a heavy toll of human lives.

Many people living just fifty miles away from London, could hardly hope to see this greatest city of the world. People going out for distant pilgrimages would bid a tearful farewell to their dear and near ones, since they were not sure of their safe and timely return because the journeys they undertook, were hazardous and time consuming. The facility of sending communications and messages to others was available only to a few privileged and well-to-do people who could afford to depute personal messengers for the purpose, since no other means of communication was available to the people.

Basic necessities of life could be procured only through hard manual labour, except in case of a few rich and powerful people who could lead a comfortable life at the cost of others. The kitchen work was a drudgery even for well-to-do housewives. There were practically no means of entertainment except for some traditional games and performing arts. Since there were no printed books, the teachers and the taught followed the oral tradition except in the case of very few who cared to copy the available manuscripts for acquiring and retaining knowledge.

The situation, during the last couple of centuries, has undergone awe-inspiring, almost an incredible change. This has been made possible by such scientific inventions as the steam engine, the railways, electric power and light, the telegraph, the radio, the automobile, the aeroplane, dynamite etc. To these must be added the life saving achievements of biology and medicine, especially the discovery of pain-relievers and preservative methods of storing food. The greatest practical benefit which all these inventions have conferred on man, lies in the fact that they have liberated him from the excessive manual drudgery that he had to undergo

for the preservation of his very existence. According to the reputed scientist, Bertrand Russel, science has changed the face of the earth and the world has changed more during the last 150 years than during 400 years previous to that.

As a result of researches in the field of medicine and spectacular development of medical technology, the deadly communicable diseases like plague and small pox have been eradicated from many parts of the world and novel and effective means of treatment of many other fatal diseases have been discovered. Improvement in means of communication and transport have lessened the rigours of floods and famines. The discoveries of sulpha, pain killers and anti-biotic drugs have helped substantially to alleviate human misery and reduce the incidence of death. All these factors coupled with improvements in medical, health and sanitation facilities, have considerably increased longevity and reduced infant mortality. Human beings, today, lead less painful and much longer lives and many more children hope to survive beyond their infancy than in the past. With the help of scientific techniques, man today has been able to acquire far greater produce from fields, factories and other natural resources. If he succeeds in exploiting the full scientific potential in this regard and ensuring more equitable distribution of all that he produces, it may be possible to remove poverty and hunger from the face of the earth.

The development of faster means of transport and communication have led to conquest of space and time and they have shrunk the world into a well-knit and integrated global entity. They have made the longest of journeys, a pleasure rather than a trial. Today a person travelling by air can have breakfast in Delhi, lunch in London and dinner in Washington. The supersonic planes rush our communications to the places of their destination in various continents in just a few hours. People sitting in their homes or offices separated by thousands of miles can participate in meaningful

discussions which can be televised for viewing by the rest of the world.

Applications of science have proved a boon for the house-wife. She has at her disposal a host of automatic gadgets and instruments which accomplish for her in minutes what used to cost her hours of physical labour and sweat. The electric ovens, toasters, mixers and grinders, refrigerators, coolers and washing machines, vacuum cleaners and of course electric fans and lights have all helped to make her life far more comfortable and cheerful.

Modern instruments of knowledge and means of entertainment have added a lot to the enrichment and pleasure of life. The television, the radio, the cinema, books, newspapers, journals and other printed materials, the modern games and sports and modern musical instruments have given a new dimension to entertainment and techniques of learning. In short, science has made our lives safer, happier and more comfortable.

3. EMERGING TECHNOLOGIES

We have already discussed the significant role that technology plays in the development of a country. However, the choice of a particular technology depends upon its relevance to the country's requirements, the socio-economic conditions of the people and the country's capacity to acquire or develop it, depending upon its financial, natural and human resources. For example, in a country like India, which is primarily agricultural and where the level of educational and social development in rural areas is fairly low, we may have to adopt a technology different from the one followed by many advanced countries for the over all development of rural people. Similarly the latest educational technology based on sophisticated audio-visual aids may not suit the requirements of our country except in case of some advanced educational

institutions. A large majority of our primary schools neither have the necessary class rooms nor even a blackboard. Our priority, therefore, is the provision of the basic minimum facilities in the form of suitable accommodation, blackboards, reading materials and, of course, trained teachers.

Apart from various existing technologies, there are some new or emerging technologies which have been partially developed and possess the potential for further development. They can be of great use both to the developed and developing countries either because of their capacity to provide solutions to many unsolved questions or perhaps their low cost. We propose to give a brief description of each of these emerging technologies.

1. Space Technology

Space research involves the launching of rockets or space ships. The primary goal of the programme is to master space science and space technology for the socio-economic development of the people, since these satellites help to : (i) develop mass communications and education, (ii) survey and manage natural resources through remote sensing technology, and (iii) collect and disseminate meteorological data to the ground stations. Besides, the space technology has military implications and a number of other uses. For example, experiments have been conducted to manufacture or produce in space, some chemicals which may help in curing certain diseases for which no satisfactory treatment is yet available.

It is important to note that vehicles were initially sent into space to determine the effects of outer space on human beings and probe the mysteries of the moon and other planets. The efforts made first by the U.S.S.R. and then U.S.A. in this direction, ultimately succeeded when Neil Armstrong, an American astronaut, became the first man to set his foot on the moon surface on July 21, 1969. Attempts have since been continuing to probe the mysteries of other planets particularly

Venus and Mars which are closest to the Earth. Efforts are also being made to set up space stations to further explore the solar system and the space laboratories to carry on experiments in space.

It must not be out of place to mention briefly the progress that India has made in the development of space technology. The achievements that our country has made during the last thirty years in the field of space research as well as utilisation of space technology for its various developmental activities, has indeed been remarkable. India launched its first indigenous rocket in 1969 and we have since followed it up by more than three hundred and fifty rockets with various payloads for scientific investigations. India made space history when it launched its satellite, Aryabhata, made by her own scientists and technicians from a Soviet cosmodrome in 1975, and was able to transmit signals and weather data via this satellite from one location in the country to another. India followed it up by the launching of another satellite Bhaskar I, again from a Soviet cosmodrome in 1979 which was meant to do remote sensing and conduct experiments in forestry, agriculture, fishing, hydrology, flood and water management. The Bhaskar I, however, became silent after sending a few reports.

India became the sixth member of the world space club in July 1980 when it successfully launched its 35 kg satellite, 'Rohini' from its own satellite launch vehicle-3 (SLV-3). The project was meant to test the efficiency of SLV-3 and it successfully served this limited objective. Incidentally this success paved the way for India's successful launching of Intermediate Range Ballistic Missiles (I.R.B.M.) which are highly significant from the military point of view.

India achieved a notable success in 1981 when its first experimental geostationary communication satellite, APPLE (Ariana Passenger Pay Load Experiment) was successfully orbited in 1981 by European Space Agency from French

Guyana. Thereafter, the Department of Space, in close co-operation with the Ministries of Communication, Tourism and Civil Aviation and Information and Broadcasting, took up the establishment of Indian National Satellite (INSAT-I) system in order to meet the identified national requirements such as upgrading of domestic communications, meteorological earth observation and data relay, nationwide direct satellite T.V. programme distribution to community T.V. receives in rural and remote areas and also nationwide radio and T.V. programme distribution. INSAT-IA was launched on 10th April, 1982 and subsequently INSAT-IB and INSAT-IC were put into orbit. INSAT-ID has also been launched recently in June, 1990. All the launchings were not success stories but the measure of success achieved by India compares favourably with similar ventures undertaken by the advanced countries. These satellites have, by and large, served and some of them continue to serve the purposes referred to above. These satellites were built for the Indian Space Research Organisation by the Ford Aerospace Corporation of the U.S.A. India achieved yet another distinction when squadron leader Rakesh Sharma, a test pilot of Indian Air Force, became the first Indian to soar into space on April 13, 1984, along with the Soviet Cosmonauts who travelled in the Russian spaceship Soyuz II. Rakesh Sharma conducted a series of researches and bio-medical experiments including Yoga.

Earlier in 1975, the Space Application Centre at Ahmedabad, effectively utilized the space technology when it conducted the Satellite Instructional Television Experiment (S.I.T.E.) with the help of a geo-stationary American satellite under which it relayed television programmes of educational and social significance to rural populations of Rajasthan, Madhya Pradesh, Orissa, Bihar, Andhra Pradesh and Karnataka. The experiment was highly successful and this prompted the Indian Government to plan utilisation of

Communication Satellites (INSAT) mentioned above for educational and meteorological purposes.

The various agencies engaged in planning and implementation of programmes relating to space research and utilisation of space technology for meeting the country's developmental needs include Indian Space Research Organisation (I.S.R.O.) and National Remote Sensing Agency (N.R.S.A.). The former is assisted in its work by its various establishments such as Vikram Sarabhai Space Centre, the ISRO Satellite Centre, Space Application Centre. The Department of Education, Communications and Meteorology of Government of India and the Directorate of Television and Akashvani collaborate with these agencies in implementing programmes relating to education, communications, meteorology etc.

2. Electronics

Humanity had entered the electronic age towards the beginning of the 20th century. The new technology ushered in a qualitative change in the mode of living of people. There is hardly any significant area of human interest which has not been influenced or affected by electronics. It has also proved of great help to the development or updating of other technologies.

Computers are admittedly the most significant contribution of the electronic age. No other single invention in the field of electronics has had greater potentialities of serving humanity. Computers and computer software have proved a blessing both for industry and commerce. They are now widely used for designing products and have greatly helped to improve their quality. Their use is almost indispensable for production of instruments which require a high degree of precision. Over the years, they have come to be involved at every stage of the manufacturing process. They are also

capable of detecting malfunctioning in machines of various kinds. Computers have also made significant contribution towards the evolution of robotics. The intelligent robots now using sensory perception, can detect changes in the work environment and proceed accordingly, using their decision-making capabilities. Computers have also helped to make travel by aeroplanes safer than before. But for the computer technology, space travel and research would not have been possible.

Computers have become an integral part of many commercial operations. Some countries like USA and Japan have gone much ahead in this direction. Many banks, commercial concerns and publishers in these countries are offering variety of services to their clients. The people sitting at home, with the assistance of their personal computers, can monitor their accounts in anyone of the dozen banks or so, transfer funds from one account to another and pay bills. They can also flick through pages of a store's electronic catalogue and simply press series of buttons to order the goods required by them. The publishers can reproduce for their reference, any page from Encyclopaedia Britannica. They can even offer a course on scholastic Aptitude Test for teenagers or show you the official Airlines Guide or road maps if desired.

Computers are also proving of immense help in medical diagnosis. They are also capable of offering sound legal and financial advice and suggest solutions to some of the tricky problems. They are also playing an increasingly useful role in nabbing criminals and fighting crime. In the field of education also, they constitute the most important part of the latest education technology. Along with television, they are offering vast opportunities of acquiring knowledge and information to persons of various age-groups. The introduction of desk-top publishing and the use of computers for editing manuscripts, have helped the publishing industry in the process of modernisation. The storage of reference materials, relevant

information and data in the computers to be retrieved as and when necessary, have helped the commercial and industrial establishments in far more efficient and accurate planning of their programmes and activities. The introduction of automation and modern system of communication in offices has helped to improve their general efficiency. Thus the computers have immense potentialities of improving quality of human life.

Besides computers, some electronic innovations have also proved of great significance in alleviating human suffering and making life more pleasant and comfortable. The progressively increasing use of x-rays, infra-red rays and lasers have been helping to diagnose diseases and providing an effective cure for them. A wide range of modern equipment required by the army and air defence systems including radars are being produced with the help of electronics. It has also revolutionised the communication systems. The electronic mass media like the T.V., and radio also the print media have brought about a revolution in the world of knowledge, information and entertainment.

Even though we have been using electronic technology for about a century, its potentialities are so immense, particularly in the sphere of space research and travel and also communications that it can be termed as emerging technology.

India has made rapid progress in electronics production. We not only produce computers in India but we are also exporting them along with computer software to other developing and even to some developed countries. We are almost self-sufficient in the production of most modern and sophisticated equipment needed by our army and air defence systems. India produces the modern electronic telephone exchanges, coaxial and microwave transmission equipment with the help of its own expertise and technical know-how. The Bharat Electronics produces storm and cyclone warning radars and all types of communication equipment for defence

in addition to television picture tubes and integrated circuits. We can thus look forward to progressive use of our own electronic technology to meet our developmental requirements in various fields.

3. Telecommunications

The tremendous advance that telecommunications have made all over the world has been made possible as a result of development of electronics as well as geo-stationary communication satellites. We have already mentioned the progress that India has made in modernising its communication system with the help of these technologies. It is now possible for a subscriber in Delhi or Bombay to dial directly a subscriber in England without assistance from an operator. Almost all the important cities in the country have been linked together with their state capitals and Delhi by S.T.D. The Indian Scientists have also been able to establish a link between New Delhi and Moscow across the Himalayas by making use of its peaks as signal reflectors.

4. Nuclear or Atomic Energy

Energy is an essential input for industrial and economic development and for improving the quality of life. The major sources of energy in the past have been coal and petroleum. The thermal power stations which are a major source of electricity, also depend upon coal and to a certain extent on petroleum and natural gas. The hydro-electric projects, the other important source of electricity, necessitate the construction of big and small dams. The consumption of energy has been progressively increasing throughout the world as a result of ever increasing developmental activities in various countries but the world cannot depend indefinitely upon these traditional sources of energy as mineral fuels such as coal, petroleum and gas are all exhaustible sources of energy. It has been estimated by the scientists that at the

present rate of consumption of energy, these mineral fuels may not last for more than 150 years. India, no doubt is fairly rich in respect of its mineral fuels, but our fast growing consumption of energy on account of faster pace of development, will not permit the oil, gas and coal resources to last for more than 130 years. Accordingly, the scientists all over the world have been searching for new and alternative sources of energy. This search has acquired urgency in view of the fact that the thermal power stations and hydro-electric projects are proving sources of air pollution and ecological imbalance which in the long run, could endanger the future of mankind.

Nuclear or atomic power if utilised for peaceful purposes, could be one of the most important inexhaustible sources of energy. This energy is produced by 'smashing' or splitting of atoms and India is one of the few countries which possess the necessary technical know-how for the purpose. Nuclear power made its debut in the country with the commissioning of the 420 mw Tarapur Atomic Power Station in 1969, with the help of USA. The Rajasthan Atomic Power Station was set up near Kota with Canadian assistance for producing power to the extent of 400 mw. We have since commissioned three more atomic power stations in Tamil Nadu, Gujarat and Uttar Pradesh with our own effort. Two more nuclear power stations are proposed to be set up in Karnataka and Rajasthan. We have, however, to depend upon foreign countries for partial supplies of uranium and heavy water for operating these power stations. We have had some difficulty in procuring them from abroad but gradually we are trying to be self-sufficient in our requirements. It is true that the power generation by our atomic power stations at present is less than 3 per cent of our total requirements of energy but since we have the potential, we can look toward to a brighter future in this regard. One thing most significant about nuclear energy is that its generation is completely pollution free. It is, however, essential to ensure safe disposal of the radio-active

wastes emanating from atomic power stations since they can pose a serious danger to the health of all living beings.

India has made creditable progress in the application of nuclear energy for peaceful purposes. Using atomic radiation, a new high yielding variety of ground-nut has been discovered while several radio isotopes produced at the BARC are used in India and abroad in industry, medicine and agriculture. We crossed another milestone in the development of atomic energy, when we detonated a peaceful nuclear device in Pokharan in 1974, which was first successful effort of its kind made by any developing country.

5. Solar Energy

Solar energy is the energy transmitted by the Sun. It is emerging as an important source of meeting the heat energy requirements of the domestic, institutional and industrial users. Solar water and air heaters, solar crop dryers and solar cookers are being increasingly used in some states. Solar cookers are sold to buyers at subsidized rates. Solar steam generators, solar refrigerators and cooking systems have also been developed. After the success of experiments conducted for generating electricity through the use of solar cells, a solar thermal power station has been recently set up in Haryana and quite a few other states in the country have shown interest in this pioneering project. In some countries, solar energy is also used for desalination of sea water. For satellites in space, solar cells constitute the only source of energy for the working of their various components.

Not all the energy that Sun sends to earth, reaches its surface, since it is radiated back by the thick layer of dense atmosphere, clouds, soot from factory chimneys and particles of dust. Scientists are, therefore, preparing to launch a power station in outer space, where there are no obstacles to the Sun's rays. The electricity produced there, will be turned into

a powerful radiowave beam and directed towards earth. On earth this beam will again become electric current.

What is more significant is the fact that the generation of solar energy does not cause any pollution whatsoever and it should prove a highly welcome additional source of energy for mankind. Efforts throughout the world are also being made to harness natural resources such as wind, the tides and ocean waves for producing energy.

6. Bio-gas Technology

The Indian bio-gas technique is helping in the conversion of live-stock manure and crop residue into energy through gobar gas plants which are becoming increasingly popular in rural areas. There are more than 100,000 gobar gas plants functioning in villages in various states. The technique is particularly suited to the conditions prevailing in Indian rural areas where effective use is not made of live-stock manure. The technique should be all the more welcome since it constitutes source of renewable energy and does not cause pollution. An efficiently operated gobar gas plant can easily meet the heating, lighting and cooking needs of an average family.

4. ABUSE OF SCIENCE AND TECHNOLOGY

Earlier we have described in sufficient detail the immense benefits that science and technology have conferred on mankind and have thereby made our lives happier, safer and more comfortable. However there is an ugly side of the picture too. We have already mentioned about the deplorable plight of children in UK and the pitiable condition of Negro slaves in South America, caused by modernisation of cotton industry with the help of technology. There have since been far more horrible consequences of development of scientific techniques, after man started applying them for the

manufacture of deadly weapons of war. Today almost 25 per cent of total number of scientists in the world are engaged in perfecting these tools of mass destruction and more than 50 per cent of the entire expenditure incurred on scientific research in the world is spent on development of these weapons. It would be relevant to recall in this connection that the atom bomb that was dropped on Hiroshima in Japan on 6th August, 1945, sent tens of thousands of people to instant death. It did worse. It left thousands of people alive and condemned them to slow, lingering and exceedingly painful end. Science and technology have since helped man to produce 50,000 nuclear weapons whose total explosive power is two million times of the atom bomb that was dropped on Hiroshima leading to unprecedented devastation and suffering. In the opinion of the reputed scientists like Albert Einstein and Bertrand Russel, these armaments are capable of destroying not only human civilization, but all life on the planet. The eventuality is too terrible even to be imagined.

This is only one side of the ghastly story. The nuclear weapons that the advancing technologies have helped us to produce, are not only hideously devastating but are also prohibitively expensive. It has been estimated that the global military expenditure totals upto three billion dollars a day and even a quarter of this amount should be sufficient to finance the entire malaria eradication programme of the World Health Organisation. Actually even a small fraction of annual military expenditure should be able to provide the whole world with adequate nutrition, potable water, housing and education. The untold misery that prevails in most of the developing countries is the direct result of the diversion to their limited resources from developmental activities to the production and procurement of these technologically advanced weapons.

Development of science and technology has also been instrumental in pollution of environment and ecological

imbalance, which, if unchecked can spell disaster for mankind in the long run. We have discussed this aspect in detail in the section on "Protection of Environment".

From the foregoing discussion in this section, it is obvious that there are two major issues before the present world. The first relates to the overwhelming role that science plays in the development of human society and the second is its potentiality for the total destruction of what humanity stands for. In the words of Jawaharlal Nehru, "Science, like Janus, the God of the Month of January, has two faces—the face of the creator and the face of the destroyer and so it is for us to make a choice as to which face we are going to encourage." On the one hand, we have this magnificent and majestic sweep of science advancing onward, bringing more and more power to human beings, and on the other hand, the possible use of its power for destructive purposes. To spell out the same issue in the words of Dr. Zakir Hussain, "Science and technology, with their amazing advance, had put into the hands of man, means that can be applied alike to the creation almost of heaven on earth or to the total annihilation, if not of all life, at least of all civilization."

On the face of it, the choice should not be difficult to make, since man hopefully would not be foolish enough to choose his own extermination. It is high time that saner elements in various countries and the scientists themselves do all in their power to stop the mad race for production of nuclear weapons and armaments and insist on the use of nuclear energy for peaceful purposes and the removal of human suffering.

As already stated, there is unlimited scope and exciting opportunities in science and technology to serve mankind and elevate human society to higher and higher levels of culture and civilization. The people responsible for using them, must lay emphasis on the humane rather than aggressive aspect of science. They shall have to establish "some basic balance

between science and society, technology and culture, between knowledge and psychology and between know-how and values". They shall have to integrate science and technology to the needs, values and aspirations of man, rather than allow it to be used for destruction of mankind.

QUESTIONS

1. What was the impact of earlier scientific discoveries and inventions on Society ? Describe the evil effects of industrial revolution on the poorer sections of Society in Britain and America.
2. "Science and technology constitute the single most powerful instrument of development in practically every sphere of human activity." Discuss.
3. Amplify the statement—"Science has made our lives happier, safer and more comfortable".
4. Describe briefly the emerging technologies, with particular reference to their potential for improving the quality of human life.
5. Describe briefly Indian achievements in the sphere of new technologies.
6. The progress of science and technology has not been an unmixed blessing for humanity—Elucidate.
7. Describe the evil effects of development of science and technology on society.
8. Write short notes on :
 1. Computer Technology
 2. Solar Energy
 3. Gobar Gas Plants
 4. INSAT-I
 5. SITE



UNIT II

INDIA'S SOCIAL STRUCTURE

"Caste System in India has been an ascending scale of reverence and a descending scale of contempt."

—Dr. B.R. Ambedkar

"No sophistry, no jugglery in words, can explain away the evidence that the skeletons in many villages present to the eye. I have no doubt whatsoever that both England and the town dwellers of India will have to answer if there is a God above, for this crime against humanity, which is perhaps unequalled in history."

—Mahatma Gandhi

"The extent to which society gives equal protection to its women is a measure of its progress."

—Vivekanand

"Children, irrespective of race, religion and nationality have equal rights to special protection for full physical, mental and social development ; they have right to adequate nutrition, housing, recreation, medical services and free education."

—From the U.N. Convention on "Rights of Children"

1. IMPORTANT FEATURES OF INDIAN SOCIETY

India's social structure is a unique blend of diverse religions, cultures and racial groups. Over 800 million people populate this sub-continent and constitute more than 16 per cent of the world population. They follow six major religions. Hindus constitute a substantial majority and account for over 82 per cent of its total population. They are followed by Muslims, who constitute about 12 per cent of the population and are thus the 2nd biggest community in the country. Christians, Sikhs, Buddhists and Jains are the other religious communities who according to 1981 census, constituted 2.6, 1.89, 0.73 and 0.44 per cent of the total population respectively.

The rural urban distribution of population shows that about 75 per cent people are rural and 25 per cent urban. Over the years, growth in the urban population has been faster as compared to the rural population. This is not merely because of availability of better medical facilities and consequent fall in death rate in urban areas but also due to the movement of substantial number of people from rural areas to towns and cities.

Men outnumber women in Indian population. There are about 940 females as against 1000 males. The sex ratio adverse to women has somewhat improved over the years. In 1971, there were 930 women per 1000 males. In Kerala, the population is dominated by women as there are 1030 women per 1000 men. On the other hand, there are only 761 women per 1000 men in Andaman and Nicobar islands.

Further, the people are an admixture of original inhabitants and a very large number of immigrants who poured into India in successive waves from the mountain passes in the North and the North West. Strains of Aryans, Syrians, Kushans, Mongols, Greeks, Romans and Persians

can, therefore, be found among the population. All these have been assimilated into an ever-widening main stream, thus contributing to ethnic diversity of the country.

The people of India speak as many as 15 major languages and as many as 844 dialects. All the North Indian languages have developed from Sanskrit which had its roots in the language of the Vedas, the most ancient compositions of world literature. The languages spoken in south India are not directly related to Vedic language but because of unity of literature and cultural unity of the country, they have been greatly influenced by Sanskrit.

Family System

Family is the basic unit in all societies. A family can be described as a group of persons who are biologically related and therefore close to each other. Family plays a vital role in giving each member, his identity, status and a sense of belonging. It provides him a background, influences his upbringing and serves as the vital link between him and the society. It also provides him security and to a certain extent, determines his future and also of his children.

The basic functions that a family is expected to perform are to : (i) provide for the material needs of the family (ii) to bring up children and arrange for their marriage and occupational placement, (iii) to maintain and take care of the aged, and (iv) to transmit family traditions, cultural heritage and material property to the next generation.

In India, we have had a tradition of joint families, which consisted of two or more primary families, linked together through paternal or maternal lines, living in a common residence and sharing certain social and economic obligations. The system at present is generally prevalent, mostly in the upper strata of society rather than the lower, among the Hindus rather than the Muslims, among the rural people rather

than the urban and among the more orthodox rather than those influenced by the western culture. The family is a well knit unit as its members are bound by blood ties. The ancestral property belongs to the family as a whole and among the family households, all the members of the family, particularly in rural areas, often work together. The income so earned is utilised to run the common kitchen and meet the needs of the family, usually under the authority of the eldest male member of the family who represents all the male members.

The joint family system, of late, has undergone drastic changes in India. There are a number of factors which are leading to its disintegration. As a result of increasing avenues of employment outside agriculture and particularly in the urban areas, the rural youngmen have been shifting to towns and cities where they establish their own households. Many young people in urban areas have also to move out of their parents' establishment, to seek openings in other parts of the country or even outside India. The property disputes that are common occurrence in joint families and the tension born out of sour relations between the mothers-in-law and daughters-in-law, have also obliged many persons to opt for an independent living notwithstanding the additional cost involved in setting up separate establishments. The trend towards smaller households and nuclear families has also been encouraged by the impact of western civilization and culture which favour independent living. It is unfortunate that as a result of disintegration of joint families, the aged have lost the traditional source of economic and social support which was easily available to them in joint families. However, joint family system, is still intact among the rural and the more traditional people.

Caste System

The caste system, a system of hierarchical social organisation that was evolved and practised by our ancestors

from times immemorial, has been the basic foundation of India's social structure. The system had started taking root during the Aryan domination of northern India. When the Aryans settled down in their new homeland, a division of functions came into existence. Accordingly, to begin with, three classes were formed—Brahmins, Kshatriyas and Vaishyas. The first consisted of priests, teachers and law makers ; the second of warriors ; and the third of cultivators and traders. In the beginning, the new divisions were not fixed and rigid and a person belonging to a particular category was permitted to shift to another class, depending upon his aptitude and competence for the performance of functions of that class. Subsequently a fourth class emerged which mostly consisted of original inhabitants of the land who were subjugated by the Aryans. They were assigned the humblest of tasks including menial work. These people, because of the nature of their work, were treated as untouchables and were called *Shudras*.

Over a period of time, the functions of the various categories became hereditary and the classification into castes became rigid. In course of time, the social gradation was given a religious sanction by invoking a verse from the Rig Veda that “Brahmins came from the face of the Creator, the Kshatriyas from His arms, the Vaishyas from His thighs and the Shudras from the soles of his feet.”

The distinctive feature of the caste system was that men belonging to various castes were not only expected to perform a given functional occupation but were considered born to it as a result of their *Karmas* in the previous birth. They were permitted to marry in their own caste and could under no circumstances change their castes.

The caste system had its virtues as well as defects. It helped to produce a remarkably integrating economy without an unhealthy competition. Technique and knowledge of specialised functions were handed down from parents to

children. This led to perfection of skills. Each individual developed a sense of belonging to a group which sustained and supported him. Each caste developed its own customs and conventions and enjoyed complete autonomy in following them. The upheaval caused by repeated foreign aggressions were thus confined to political field, while the social set-up remained generally intact. This helped the survival of Hindu society during the centuries of turmoil and tribulations.

2. SOCIAL TENSIONS

The caste system has been subjected to repeated attacks for its basic principle of inequality. Buddhism and Jainism were not favourably disposed towards it. Sikhism did not believe in it. The sufi saints were opposed to it. Though most of the Hindus still claim to belong to one or the other caste, the system has lost much of its relevance, particularly in respect of three upper classes. Unfortunately the lowest class of Shudras continues to persist and its members are still considered untouchables by many upper class orthodox Hindus because of the menial work assigned to them. In order to help them to improve their condition, the Government has categorised them as Scheduled Castes. They account for more than 16 per cent of Indian population and thus constitute a vast segment of our society.

It is thus obvious that India is a multi-religious, multi-lingual and multi-cultural society, but it is important to note that there is unity in its diversity. As discussed in greater detail, in a subsequent section on National Unity, there is a fundamental unity among all religions, since all of them teach similar doctrines and similar principles of ethics and morals. There is also a close affinity among its various languages. India has evolved a common composite culture as a result of synthesis of various religious cultures. There is, however, no denying the fact that customs, conventions and practices followed by different religious communities often differ from

each other. Various religions and regional cultures also differ in certain material aspects. Even otherwise, religion wields an awesome power over the masses and has at times been the single biggest dividing factor among people. Some of the bloodiest wars fought in Europe during the medieval period, were based on religious intolerance and hatred. Even in modern times, several wars in Africa and the wars between Israel and Arab states and Iran and Iraq had no doubt traditional rivalries and border disputes etc., as their immediate causes but to a greater or lesser degree, the racial and religious hatred and intolerance were central to it. Pakistan, too, while preparing its people for war against India, has always played upon their religious sentiments.

India herself had the bitter experience of facing many problems as a result of social tensions among various religious communities and linguistic groups. Prior to the achievement of independence in 1947, difference and discord between Hindus and Muslims thwarted the country's efforts to present a united front to the British rulers in its fight for national freedom. India's pre-independence history was marked by clashes and riots between these two major religious communities which became more frequent and violent during the late 30s and early 40s of this century. As a result of this, the national leaders had to submit to the demand of a separate state for Muslims as a precondition of the British withdrawal from our country. Soon after Independence, Mahatma Gandhi, the Father of the Nation fell victim to the bullet of a fanatic who, along with some other religious bigots among Hindus, did not approve of his concern for Muslims and the efforts that he made for Hindu-Muslim Unity.

In a subsequent section dealing with 'National Unity', we have pointed out that Hindu-Muslim differences were the result of comparative backwardness of the Muslim community in educational and economic fields because of certain historical reasons and these differences were played upon by

the British rulers for the success of their Policy of 'Divide and Rule'. Subsequently, the political and other vested interests exploited these communal tensions and were able to win over substantial Muslim public opinion in their bid to create a separate state for the Muslim community.

The havoc that communal carnage caused prior to and immediately after the partition of the country led to unprecedented loss of human life and destruction of property, on both sides of the border dividing India and Pakistan. It was hoped that the secular policies of the Government of India would be able to eradicate the virus of communalism from India's body politic, but these policies and the efforts made by the Government in this direction have met only with limited success, primarily because the factors that were initially responsible for the social tensions between these two major religions have continued to operate even after independence.

As compared to Hindus, even today the Muslims in general are socially and economically backward. There is also no dearth of vested interests and anti-social elements who, for their ulterior motives, are ever keen to exploit the tensions existing between the two communities in various parts of the country. While Meerut, Moradabad, Ahmedabad, Aligarh and a few other places have been the centres of repeated communal riots and Bhagalpur witnessed the worst of communal carnage in 1989, the cosmopolitan cities like Delhi and Bombay have also suffered in terms of communal violence. For quite some time, the controversy about Babri Masjid-Ram Janma Bhoomi at Ayodhya has been a cause of tension between certain sections amongst Hindus and Muslims and the Government has been seriously concerned about it. While the major responsibility for communal tensions and clashes has to be shared by the local religious fanatics, anti-social elements and in some cases, vested interests, Pakistan has also not lost any opportunity of fanning the fires of communalism in our country. The recent upsurge

of violence with communal overtones in Jammu and Kashmir is the direct result of incitement, training and material support given by Pakistan to some communal and secessionist elements in that state. Even the Sikh terrorists in Punjab who have been carrying on their subversive activities for more than a decade for creation of so-called Khalistan, have been actively supported and assisted by that country and a few misguided people in some foreign countries. Violence has also claimed many lives in some of the north eastern states of the country but there the ethnic hostility and insurgency have been the basic cause of trouble.

The only effective answer to the religious tension is strict observance of secularism adopted by the country as a guiding principle of state policy, without compromising on the basic issue of Indian unity and integrity. At the same time, steps should be taken to remove misapprehensions if any, from the minds of religious minorities that their religion and culture along with their social and economic interests would be duly safe-guarded in the country. Social and economic upliftment of the minorities is all the more important since the backward and poor sections among the minorities fall an easy prey to the propaganda of anti-social subversives and anti-national elements in the society.

Linguistic tensions have also been a disturbing feature in India, though they have not been as frequent and wide-spread as religious tensions. At one time there was a fierce controversy about the declaration of Hindi as mother tongue of Hindus living in Punjab. We have also witnessed violent clashes between Marathi and Kannada speaking people, both of whom insisted on inclusion of certain contiguous areas in their linguistic states on the plea that the people of these areas belonged to their linguistic groups. The issue of adoption of Konkani or Marathi as the state language of Goa, was the major issue put forth by the rival political parties in successive elections held in this territory, after it was freed from

Portuguese rule. There has been regular and persistent opposition to the acceptance of Hindi in Tamil Nadu as the link language of the country and many precious lives were lost in the violent anti-Hindi agitations held in that state.

In the section of National Unity, we have explained irrationality and irrelevance of linguistic tensions in the country in view of the common origin of all north Indian languages and their affinity to south Indian languages.

Closely related to the linguistic tensions are the regional tensions which are born out of misplaced notions of certain areas, about their cultural and linguistic superiority over other parts of the country. They are often tempted to prefer 'sons of the soil' to candidates from other States in the matter of admissions to educational institutions and employment in public services, without consideration of merit of individual candidates. At times, such states do not hesitate to give precedence to regional interests over the national interest. The emergence of regional parties as the dominant political powers in some states, are possibly the result of greater emphasis on regional loyalties or local issues. It is, however, a matter of satisfaction that the regional leaders, when called upon to operate at national level, often acquire a broader perspective and join the national mainstream. Aggressive regionalism is as harmful for the national unity and progress as aggressive nationalism is for international peace and understanding and should therefore be discouraged in the larger national interest. At the same time, it is necessary that the national Government takes steps to remove the regional imbalances and strives for the promotion of all regional cultures and languages and make all the states feel as equal partners in the country's progress and prosperity.

3. SOCIO-ECONOMIC DISCRIMINATIONS

India is a land of great diversity. There is a diversity not only in its geographical features and flora and fauna but also

in the races that its people belong to, in the religions that they profess and the languages that they speak. There is, however, a unity in its diversity and this can help to unite its people into one nation. Unfortunately, social inequalities and economic disparities persist in the country on a large scale and large sections of its people continue to be victims of socio-economic discriminations which militate against national unity.

Plight of Depressed Classes in India

While describing the caste system in India, in the previous chapter, we had mentioned about the scheduled castes which constitute more than 1/6th of Indian population. Throughout centuries, these people have been the worst victims of socio-economic discrimination and it is nothing less than national scandal that this vast oppressed section of society, by and large, continues to suffer social and economic exploitation even after more than forty years of Indian independence. In pockets of rural India and even in some urban areas they are still treated as untouchables. A large majority of them live outside their respective villages. In many cases, they are not allowed to draw water from public wells and enter temples. In some cases even barbers would not shave them. They also account for a very large majority of the bonded labour which is nothing but a form of slavery practised mainly in the rural parts of the country. They are not adequately represented in many Gram Panchayats and Co-operatives and also in public services under the central and state governments. These depressed classes in villages continue to be the victims of oppression and tyranny perpetuated by the upper classes.

Measures Adopted to Improve Socio-Economic Condition of the Scheduled Castes

The depressing state of affairs referred to above is all the

more regretted since it continues to exist despite efforts made by many enlightened social reformers and political leaders and the safeguards provided by the Indian Constitution to improve the social and economic condition of the so-called untouchables.

Mahatma Gandhi was perhaps the greatest champion of their right to social equality with other members of the Hindu community. He had once declared that "untouchability must die if Hinduism is to live ; and if untouchability is to live, Hinduism has to die." He had given them the name of 'Harijans' and launched a massive social movement to improve their social status. When the Britishers, in pursuit of their policy of 'divide and rule', decided to treat them as a separate community like Muslims, for purposes of elections to legislatures, etc., Mahatma Gandhi undertook fast unto death, as a result of which he succeeded in securing not only joint electorates for Harijans and other Hindus but also substantial increase in the seats to be reserved for them in legislative bodies. Jawaharlal Nehru had also realised that social discrimination practised against such a large segment of society stood in the way of modernity, socialism and democracy. He felt that a social movement alone would not be sufficient to tackle this gigantic social problem. He opted for legislative action as a new and powerful means for changing and restructuring Indian society on the basis of social equality and economic justice.

Babasaheb Ambedkar who was a committed and vociferous supporter of the cause of these oppressed people, believed that untouchability was the ultimate social projection of the caste system. He described the system as 'an ascending scale of reverence and a descending scale of contempt', since it had not merely divided society into four castes but had put them one below the other, with proliferating subcastes and a vast common pool of untouchables at the very bottom. According to Dr. Ambedkar's view—and this view is shared

by all rational thinkers in the country—the solution of the problem lay in not only eradication of the caste system which has lost its relevance and functional utility in the modern world, but also in allowing a significant share to the scheduled castes in the supreme executive and legislative power both at the centre and in the states in the country. This could be possible by making special provisions for their advancement in education, reservation of positions in government services, and representation in parliament, state legislatures and in professions and industries. It was in pursuance of these major concerns of the scheduled castes that the Indian Constitution in whose drafting Dr. Ambedkar had made the most significant contribution, and the subsequent legislative and administrative measures adopted by the Government, provide for the protection and promotion of the interests of this section of society.

Further Steps Necessary for Removal of Social and Economic Discriminations against Scheduled Castes and Scheduled Tribes

Actually the economic problem of the scheduled castes is not limited to these depressed classes. It is an important aspect of the general and gigantic problem of the larger community of the under-privileged Indians of whom the scheduled castes constitute a very substantial part. In cold reality, they are the tillers and the toilers of the land, a large part of our urban and rural proletariat and the most exploited and oppressed among them. It would, therefore, be helpful if they are brought into the mainstream of our social and political parties and also in the trade unions. Kisan Sabhas and other organisations set up to safeguard the sectional interests of the deprived sections of society so that their struggle against the forces of exploitation can be more effective. They can, of course, continue to fight through their own exclusive organizations, for seeking solutions to the

questions which are peculiar, specific and geographically local for them, including special facilities for education, representation in public services etc.

Experience has shown that the executive and administrative action for the protection of rights of the SCs and ensuring social and economic justice for them has not been characterised by the same earnestness with which the legislative measures were adopted for this purpose by the Government. As a matter of fact, the number of crimes against the depressed classes have been on the increase in recent years. It is, therefore, necessary for the Government to match their intentions with vigorous action. Of late, the Government appears to be moving with resolute steps in this direction. Recently, the provisions for reservation of posts for SCs and STs, in public services have been extended for a further period of ten years despite violent agitation against them by vested interests in some states. The Central Government has also enacted SCs and STs (Prevention of Atrocities) Act 1989, and special courts for deciding cases involving crimes and discriminations against Scheduled Castes and Tribes are proposed to be set up. It has also been decided to observe 1990—the centenary year of Baba Saheb Ambedkar (who was recently awarded Bharat Ratna, the highest honour that India can bestow on its eminent citizens)—as the Social Justice year in which a number of programmes would be implemented to ameliorate the social and economic condition of the depressed classes. It would also be helpful if a substantial number of Dalits are inducted into various levels of the administration and also the army and the police.

There is, of course, a need for promoting consciousness in society about the urgency for doing justice to almost 1/6th of our entire population which, for centuries, has been the victim of the worst kind of discrimination. Actually there is a basic contradiction between the social and economic

discriminations practised in our society and the democratic system of government adopted by us.

Thus our democracy as well as unity, stability and progress are contingent upon a radical and urgent solution to the problems of the deprived masses of India specially of the 150 million people who are classified as scheduled castes and scheduled tribes.

Rural Versus Urban People

As stated earlier, 3/4ths of India's population lives in villages. It would be irrational to conceive the country's progress and prosperity without paying adequate attention to the development of rural people. Prior to independence, the British rulers were hardly interested in the balanced development of rural and urban sectors. They did practically nothing to improve agricultural practises for increased production or the lot of those employed in agriculture, who formed the dominant part of rural population. Their main concern was to procure raw materials for British industries in U.K. and obtain for themselves in the form of land revenue, all surplus available in agriculture. To achieve their objectives, they employed the most dubious means which resulted in turning majority of the cultivators into tenants or landless labourers. The Britishers also encouraged landlords, money lenders and certain officials who mercilessly exploited the needy and the helpless in villages to serve the British as well as their own interests. The condition of tillers and toilers of the land had become so pitiable that Mahatma Gandhi who held the British Government and the urban elite responsible for their plight, was once obliged to remark that "No sophistry, no jugglery in figures can explain away the evidence that the skeletons in many villages present to the naked eye. I have no doubt whatsoever that both England and the town dwellers of India, will have to answer if there is God above, for this crime against humanity, which is perhaps unequalled in history".

After independence, the national Government adopted certain policies including abolition of Zamindari and untouchability and undertook programmes for development of rural areas and improvement of the socio-economic condition of rural masses. Apart from development of means of transport and communication and provision of educational and medical facilities in rural areas, the Government initiated and implemented many programmes for integrated rural development. They included Training Rural Youth for Self-Employment, National Rural Employment Programme, Rural Landless Employment Gaurantee Programme, apart from some measures for distribution of surplus land among the poor and special programmes for the benefit of scheduled castes, and scheduled tribes living in rural areas.

These programmes have, no doubt helped to improve the situation and raise the standard of living of many villagers but the success they achieved can only be termed as 'limited'. The social and economic conditions in rural areas are still far worse than those prevailing in the urban parts of the country. Unemployment and under-employment continue to be the common features of rural life. The percentage of poor people is much higher and the oppression and exploitation of the deprived sections of society is far greater in villages than in towns and cities. The reports about caste atrocities in rural areas continue to appear in the press with alarming frequency. As a result of lack of medical facilities and health consciousness in villages, there is greater incidence of infant mortality as compared to urban areas. Educational facilities available in villages are highly unsatisfactory and rampant illiteracy and ignorance continue to hamper agricultural production and general development.

The reasons for this glaring imbalance in development between the rural and the urban people are not difficult to seek. It is easier to provide educational, medical and employment opportunities to urban areas because of

concentration of population and faster growth of industries in view of easy availability of improved means of transport and communication and other necessary infrastructure. Despite this, we should have been able to lessen the gap between the development of the two sectors but for the tardy implementation of the programmes chalked out for improving conditions of rural poor of whom the depressed classes constitute a substantial majority. This has been partly due to ignorance about the rural realities and partly because of bias in favour of urbanites on the part of those city people who held positions at different levels in the executive and administrative agencies charged with the implementation of these programmes.

It is a matter of some satisfaction that as a result of increased vocal representation of rural areas in central and state legislatures, there is a greater consciousness on the part of the Government to strengthen the operational aspect of its programmes to improve the social and economic condition of rural masses and thus lessen the yawning gap between the levels of development of urban and rural people. The Government have also devised some new measures to achieve this objective. They include the upward revision of minimum prices of foodgrains and other essential agricultural commodities, provision of more employment opportunities for rural youth and remission of loans upto Rs. 10,000 given to farmers, artisans etc., by the nationalised and cooperative banks, strengthening of literacy programmes in rural areas, provision of speedy justice for the victims of caste tyranny and oppression in villages, abolition of the system of bonded labour and rehabilitation of released labourers etc. It is hoped that more effective implementation of already existing programmes and these measures would improve socio-economic situation in rural areas.

Rights of Children

Children are an important segment of a society since the future of a nation depends upon them. They need special care in the matter of their education and development. It is, therefore, a subject of concern that adequate attention has not been paid to their welfare, in our country and generally speaking, their condition does not compare favourably with children in most other countries. For example, according to UNICEF, more than 50 per cent of children living in absolute poverty in the world, belong to India, Pakistan and Bangladesh. Similarly 45 per cent of the malnourished children and 40 per cent of those not going to school in the world, are residing in just these three countries. The position of girl children is particularly worse in the matter of malnutrition and illiteracy.

Again, India employs the highest number of children in the world and their working conditions are also usually harsh in our country. According to 1981 census, 14.5 million children below 14 years of age, were working in different areas. Almost half a million children, between the ages of three and half years and 15 years, worked for almost 12 hours a day in the match and firework industries, in extremely unhygienic conditions. In the bidi industry children, eight to twelve years of age, sometimes even those between five and eight years, put in long hours and often contract bronchitis and tuberculosis. The lot of children working in the carpet industry in Jammu and Kashmir and diamond cutting industry in Gujarat is no better.

The condition of children in our country appears all the more deplorable in the context of the fact that the U.N. Convention on Rights of Children, has declared that children irrespective of race, religion and nationality, have equal rights to special protection for full physical, mental and social development. They have right to adequate nutrition, housing, recreation, medical services and free education. They are also

entitled to affection, love and understanding and to be the first to receive relief and protection particularly against neglect, exploitation and cruelty. The Indian Constitution has also assured, more or less, similar rights to children. It is, however, unfortunate that our priorities, political approaches and development techniques do not lay sufficient emphasis on respecting their rights.

Even the people at large are not conscious of the urgent need for bettering the condition of children. The mention of 'rights of children' does not evoke much of a response even from enlightened persons. The urban intelligentsia and the upper middle classes are perhaps more sensitive to the cause of protection of animals and even of plants than the protection of children against discrimination and exploitation. There is no dearth of donors who would be ready to build temples, churches and mosques but would show their reluctance to financing projects and schemes for bettering the lot of poor and disabled children. No political party has ever considered it necessary to mention specially, protection of rights of children in their election manifestoes. As a result, children who should take a place of pride in nation building, are the victims of indifference and neglect.

The Government is no doubt implementing some schemes for the benefit of children. They include Integrated Child Development Scheme (ICDS) and some other measures like mobile creches for children of migrant workers, Oral Rehydration Therapy (ORT) and immunisation programmes with the assistance of UNICEF and other agencies. But in view of the magnitude of the problem, far more needs to be done than has been done so far.

The question of **discrimination against women** has also been a matter of concern for progressive thinkers and well-informed and socially conscious women not only in India but all over the world. In view of its social significance and importance for the progress of society, it is proposed to deal

with the subject, Status of Women in India in a separate Chapter that follows.

4. STATUS OF WOMEN IN INDIA

Women in Ancient India

The position of women in Indian tradition has been a subject of controversy for a long time. There are many scholars who believe that the respect and honour that India gave to women in the past, was not enjoyed by them in any other part of the world. There are also a number of knowledgeable people who are of the opinion that women in ancient India never shared rights with men on basis of equality. There is also a viewpoint according to which the Indians did show respect to women and even worshipped them in the past but never allowed them equality of status with men, as we understand it today.

The opinions expressed about the position of women in Indian tradition, referred to above, are no doubt at variance with each other, but an analysis of the situation in its historical perspective would reveal that there is an element of truth in all of them. India is an ancient country and it has a very long history. The political and economic conditions in the country have been changing with the passage of time and so has been the social status of women. India is also a vast country. The multiplicity of religions and communities have lent a peculiar diversity to its life and living conditions. The position of women in different parts of the country has been affected differently by the economic conditions, religious traditions and thinking patterns of the people living in those regions.

Man's Biological Advantages

In primitive times, the instinct for self-preservation urged man to be ever ready for defending himself and protecting his property from beasts, birds and even other men. Man's

superior physical strength must naturally have been of tremendous importance during this pre-historic age. On the other hand, a woman was greatly handicapped in the struggle against hostile elements, primarily because of the bondage of reproduction. Pregnancy, child birth and menstruation reduced her capacity for active outdoor work and at times she found herself wholly dependent on man for food and protection. Thus a man's superior physical strength gave him an opportunity to attain a position of superiority in the family. He relegated woman to an inferior position and obliged him to play a second fiddle to him. This is what a man has done in almost every part of the world.

Position of Women in Early Vedic Period

The women in ancient India were, however, treated with great respect. During the pre-Aryan period, the Dravidians, the earliest known inhabitants of India, by and large, lived in matriarchal society. From the archaeological findings and other sources, it is clear that a woman enjoyed a respectable position in society. She was revered and even raised to a divine pedestal. She was an important limb of the society in her own right, and enjoyed a social position almost on par with men. This position continued for quite some time after the advent of Aryans. Man and woman continued to be considered as "two wheels of the same chariot". A woman was relatively free from social constraints. She as a wife, played an important role in all religious rituals. Women were entitled to receive education and they were encouraged to engage themselves in scholastic pursuits. Our scriptures mention a number of scholarly women who successfully challenged men in literary duels. The names of Gargi and Maitreyi are well-known in this context. Girls married only after attaining puberty, and they were allowed freedom to choose their marriage partners. There was no rigidity about social regulations and inter-caste marriages were permissible. A woman could remarry after her husband's death. In the

absence of a son, a daughter was known as *Putrika* and was expected to perform all religious functions, which were otherwise performed by sons. *Purdah* (veil) system was unknown to Aryans and women had no inhibitions in interacting with men in social gatherings.

The people and particularly the upper classes worshipped the feminine divinities, connected with the gods as their spouses. The most important among them was the wife of Lord Shiva, known by various names as Parvati, Gauri, Annapurna, Jagadamba etc., in her benevolent aspect and referred to as Durga, Chandi and Kali as destroyer of evil forces. Lakshmi, the spouse of Lord Vishnu and goddess of worldly blessings and Saraswati, the consort of Lord Brahma and goddess of arts and letters, are two other prominent goddesses who continue to be worshipped by large number of people to this day. Incidentally, Durga inspires far more respect and awe than any male god, among the eastern parts of the country.

Decline in Position of Women

Over a period of time, the people came to believe that a son alone could perpetuate the family line, perform the last rites of the parents and deliver his ancestors in the 'other' world from earthly bonds. The increase in the importance of sons in the society, started having an adverse effect on the position of women. This factor along with some other developments, which we shall discuss later, led to erosion in the status of women during the succeeding centuries. The process was slow but discernible. However, it did not apply uniformly to all sections of society and also all parts of the country.

Notwithstanding the affirmation of a man's superiority vis-a-vis the woman, the latter continued to enjoy, if not equal, at least a significant place in society. A woman's significance is obvious from the fact that the women were the

principal causes of the two great wars, chronicled in Ramayana and Mahabharata. These two wars were fought to avenge the insult perpetrated on the royal ladies, Sita and Draupadi, by Ravana and the Kauravas respectively. During the Buddhist period of Indian history, many women were entrusted with the important task of propagating Buddhism.

There were also no dearth of tributes that the authors of our religious and other works continued to pay to the women. It has been mentioned in one of the scriptures of later period that "Gods rejoice where womens are worshipped", but it was now not a woman as a person but a woman in the role of a mother and at times as a wife, that we idealised and glorified in many episodes recorded in our epics and other religious books. A son is enjoined by the Shastras to feel ever indebted to her mother who bore and nourished him. This veneration still continues in a very large number of Hindu families who still respect Indian tradition and culture.

Be what it may, there is no denying the fact that the position of women had started deteriorating during the Aryan period itself. The growing importance of a son, and man's superior physical strength as mentioned earlier, were major contributory factors to the development of this deplorable situation. Since then many religious leaders and law givers have been vying with each other in running down the women. They have also tried to provide religious and social sanction to a woman's inferior position in society. According to Manu, a widely known and respected law giver, "the nature of women is to seduce men; they lead astray not only fools, but even learned men ; they should never be granted independence, they are not fit for that". In one Buddhist Jatak stories, a woman has been described as "unreliable, ungrateful and source of all evils". The Jain verdict is, "Do not desire women. They constantly change their mind, entice men and make sport of them as slaves".

In the light of such opinions expressed in highly respected religious works and voiced by the leaders of public opinion, a woman was deprived of social and religious independence, and equality of status with men, that she enjoyed during earlier Vedic period. Man's attitude hardened towards her. As a consequence, the condition of women deteriorated fast. Along with lower castes, she was debarred from the study of Vedas. In due course, a woman was denied right to education. If she was expected to be protected by her husband, it was more so as a mother of his sons than as the partner of his life. If she did not bear sons for a long time, she became superfluous for her husband and he was entitled to remarry. A childless widow was, however, allowed to marry for the sole purpose of begetting sons. A widow was condemned to a dull and rigorous life.

Gradually, a woman's role became confined to domestic chores and rearing of children. Her world became limited to the four walls of her house. Her economic dependence on her husband made her position more vulnerable. She was taught to consider her husband as her 'lord and master' and her fidelity and single-minded devotion towards him was declared as her foremost religious duty and a means of her salvation. It was enjoined upon her to practice *Pati-Vrata Dharma* and observe fasts for her husband's long life and happiness without insisting upon the husband to observe a reciprocal conduct or show equal concern for his wife. Actually the code of conduct in respect of fidelity and morality has been and continues to be different for men and women.

A woman was and is still considered *Praya Dhan* (other's property) and it was a religious duty of father to give her away in marriage to a suitable 'Patra' (recipient). The marriage has all along been significantly enough, considered as *Kanya Daan* (the donation of a daughter) and the husband known as *Swami* (Master). A woman has thus been treated as a commodity to be given and accepted in marriage. Hindu

scriptures have enjoined that a woman needs to be protected in her childhood by her father, in youth by her husband and in old age by her son. She was thus seldom treated as independent individual capable of deciding her future and fashioning her own life. At the time of her departure to her husband's place, her parents would advise her, "Now the husband's house is your home forever; only your dead body will come out of those doors".

Before we proceed further, it seems necessary to describe some of evil customs like early marriage, *sati* and dowry which made the position of women all the more vulnerable, so much so that the birth of a female child was considered ill omen among certain families. There have also been reports of female infanticides among certain communities in the country.

Custom of Early Marriage

Women in India have been subjected to the evil of early marriage since ancient times. Hindu religious leaders had decreed that a girl should be married immediately after the beginning of puberty. According to one of them, "the very sight of the pubescent maid sends her father and brothers to hell". It is not certain whether parents and brothers of unmarried pubescent girls went to hell, but there is no doubt that parents did make hell of lives of their daughters by marrying them off at a tender age. The women received little or practically no education by the time they were married. The teen-aged boy and the girl were too young and immature to understand the implications of marriage and the heavy responsibilities of a married life. Premature motherhood, a natural consequence of early marriage, proved also damaging for the health of young mothers.

It was indeed fortunate for the country that from the 18th century onward, a number of great reformers including Ishwarchandra Vidyasagar, Raja Ram Mohan Roy and Swamy

Vivekananda realised the dangers inherent in this social evil and made untiring efforts to curb it. This led the then British Government to pass Sharda Act which prescribed 18 years as the minimum age of marriage for the boys and 14 years for the girls. This Act has since been superseded by another statutory provision made by the Government after independence which has fixed the minimum age for marriage at 21 and 18 for boys and girls respectively. This law is applicable to all communities in the country.

The old traditions die hard. The evil custom still continues despite the efforts made by the social reformers and the laws passed by the Government. With the rise of social consciousness particularly among the educated in urban areas, its incidence has decreased appreciably and the custom is now prevalent mostly among the backward communities and rural areas. The Government is, however, fully conscious of serious implications of the social evil and is carrying on a relentless campaign against it through various media of mass communication.

Dowry System

Another pernicious practice that has proved detrimental to the position of women in India is the dowry system. The dowry consists of payment in cash and kind that the parents make to their daughter and son-in-law at the time of betrothal and marriage. The payment that some people in the country, make as a price of the bride can also be treated as dowry. Giving or demanding dowry of any kind and in any form is nowhere mentioned in our scriptures. The demand of price for the bride is actually condemned by Manu. "No father," says he, "shall ever receive a particle for giving his daughter in marriage and thus become the seller of his off-spring". The concept of dowry is thus alien to ancient Indian culture. The system of dowry seems to have originated in a later period of history. The ugly form that this practice has now taken is

comparatively of recent origin.

The system of dowry in the medieval and even during later period could perhaps be justified on the ground that the daughters, at that time, had no share in the property of their parents. In the present age, the parents of eligible bridegrooms exploit the natural urge of the girl's father to find a suitable husband for their daughter, by fixing a price for giving their consent to the proposed marriage. Even otherwise, a dowry-less marriage is unthinkable for tradition-bound Hindus. Even when no demands are made by the people from the bridegroom's side, unexpressed expectations are there. It is to meet the specific demands or unspecified expectations of grooms or their parents that the parents of the bride particularly those from middle and lower middle classes, exhaust all their financial reserves.

A large number of people with limited means are obliged to borrow money at exorbitant rate of interest to meet their obligations in this regard, which they just cannot afford to repay without condemning themselves and their families to a life of misery and privation.

The trouble for the parents of the bride, in some unfortunate cases, does not end with the marriage of their daughter. A few unscrupulous husbands and more often their greedy parents, prompted by their insatiable hunger for money and materials, tease and torture the bride to extort more and more money from her parents. The hapless girl, whose parents do not find it possible to meet their ever increasing demands, finds herself in a tight corner and eventually seeks solace in suicide. There is no dearth of cases where bridegroom's people, frustrated in their nefarious designs to extort money from the girl's parents, take it upon the helpless girl and kill her by burning her alive or by some other means. Such dowry deaths had been on the increase during the recent past but of late there appears to be some perceptible decrease in such crimes. This is probably due to the forceful

demonstrations organised by spirited youth and women organisations to protest against the perpetrators of these heinous crimes. The slogan of 'brides are not for burning' is catching the imagination of socially conscious people. It is, however, a pity that many cases relating to dowry deaths have not resulted in successful prosecution of the accused, mainly because of the general absence of eye-witnesses and the reluctance of neighbours to come forward to offer evidence which could prove circumstantial in such cases. It appears relevant to add that the persecution of women to satisfy the demands of their in-laws in respect of dowry etc., is an evil more prevalent in northern parts of India.

There are some socially and financially better placed persons, especially the 'nouve riche' among them, flush with black money who consider dowry as an issue of prestige and in order to satisfy their vanity, they try to excel each other in this regard. In this way they not only help to perpetuate this evil practice but also create problems for a large number of persons with limited resources.

Apart from other attendant evils, the system of dowry has contributed considerably to further decline in the position of women in India. With the spread of dowry system, a female child has become a financial liability to her parents and her birth has become all the more unwelcome. Only in some cases, a girl's entry into the world is greeted with joy and enthusiasm. By and large, the reaction to her birth varies from sheer disappointment to an apologetic smile.

The Central and State Governments have, no doubt, introduced legislative measure to stop the dowry system. A law banning dowry was also passed in 1962 but it has been followed more in breach than observance. The special cells set up by the Government for fighting crimes against women, have also not yielded the desired results. It is felt that development of social consciousness among the people against this practice and coordinated efforts by the voluntary

youth and women organisations, can alone help to curb the evil of dowry system, which has long since outlived its utility.

Custom of Sati

Sati, an inhuman custom, is considered to have been prevalent in India since 4th century B.C. By that time, the position of women in the country had considerably deteriorated. In a male-dominated society, she had lost her individuality and separate identity, and was always described in relation to man. Without a man she became irrelevant to other relatives and superfluous for society. It was then that after her husband's death, she was made to believe that her existence would not be of any use to her or others. The women, therefore, started burning themselves over the pyres of their 'lords and masters'. There is a mention of more heinous crime perpetrated on women as an alternative to sati. Jean Baptiste Traveenier in his "Trends in India" records that in Coromandal coast, "a woman after the death of her husband does not burn herself but allows herself to be entered, while alive, with her dead husband in a hole which the Brahmins dig in the ground. After she is buried, they jump and dance upon it till they conclude that the woman is smothered".

The Brahmins and other fundamentalists in the Hindu religion, started glorifying the women who committed Sati. Some temples were also constructed to honour the 'hallowed' memory of Satis where they are worshipped even to this day.

Sati was, of course, not a universal practice in India. It was limited to certain regions in the country and certain sections of society. Buddhism, Jainism and Sikhism—all discouraged and even condemned this practice. There have also been certain rulers who were strongly opposed to this cruel practice. Akbar, the great Mughal emperor prohibited the use of compulsion in getting a woman to commit Sati. Jahangir went a step further and decreed its abolition and prescribed death penalty for any one aiding or abetting it.

Aurangzeb was compassionate enough to issue an order that, "in all lands under Mughal empire, never again, would any official allow a woman to be burnt". The Marathi rulers also took vigorous steps to stop Sati in their domain.

The British rulers, who otherwise believed in non-interference in religious matters could not be mute witnesses to this repugnant custom. They first decreed that the pregnant women and those under 16 years of age would not be allowed to commit Sati. Further, no widow could be forced to commit Sati against her will. Subsequently, under pressure from Raja Ram Mohan Roy and other reformers, the then British Viceroy Lord William Bentinck declared Sati illegal and the burning alive of widows, a culpable homicide punishable with fine or imprisonment.

It is indeed a matter of concern that despite the efforts of some reformers to curb it and laws passed by various rulers, the evil practice still continues in the hinterland of Rajasthan etc. It was only some time ago that the report about the commitment of Sati of a young widow Rup Kunwar in this state, had outraged the social consciousness of Indians almost all over the country. Yet the number of local people from rural areas and the young men from the Rajput community gathered together in such large numbers in support of the practice of Sati that it was quite a task for the Government to restore law and order in that area.

It is stated that in a democracy, every citizen must share blame for the ills of society. If that be so, every Indian should hang his head in shame over this most deplorable incident, and should consider his moral and social responsibility to do all that he can to prevent the recurrence of such inhuman acts.

Position of Muslim Women

The position of women in the Muslim community was not different from their counterparts among Hindus. As a

matter of fact, male domination over women had been a universal feature and Muslims in India were no exception. In matters of marriage, dowry, divorce and adoption, they have been governed by their Muslim Personal Law. *Nikah* (marriage) for a Muslim is a permanent civil contract between two persons of opposite sex and is permissible even in extremely old age. The marriage is not indissoluble and the men are authorised to divorce their wives subject to certain conditions. A Muslim woman cannot lawfully marry a non-muslim but the male can marry a Christian or the follower of Judaism. On the death of her husband or in case of divorce, a Muslim woman can remarry if she so desires. Polygamy is permissible among the Muslims under certain conditions. Muslim Law also gives the right to the husband to chastise moderately his erring wife. In the matter of succession and inheritance, the Muslim women are governed by the Muslim Personal Law which is far less liberal than that by which Hindu women are governed. Early marriage is not prohibited in Islam but unlike among Hindus, it has not been encouraged.

The dowry system and *Meher* etc., among the Muslim community in India are generally regulated by the Muslim Law and Quranic injunctions. People, however, have now started exceeding these limits. Marriage, for some Muslims too, has become an opportunity to procure easy money. It is, however, a matter of relief to observe that due to the flexibility of the Muslim Law in general, there have not been any dowry deaths or burning of brides among the Muslims. The use of *purdah* (veil) which was practically unknown to ancient Hindus, was widely practised by Muslim women. The low level of education has been a particular characteristic of Muslim women and to an extent it continues to be so even today.

Women during the British Period

The British occupation of India extending over 200 years

was a dark period in Indian history, but it proved a blessing in disguise so far the amelioration of condition of Indian women is concerned. During the British rule, Indians were exposed to western system of values, liberal education, objective thinking and a democratic way of life. This led to development of social consciousness among people about the deplorable situation in which women were placed. The 18th and the 19th centuries threw up a number of patriots, religious and spiritual leaders and social reformers such as Keshab Chandra Sen, Bankim Chandra Chatterjee, Ishwar Chandra Vidyasagar, Raja Ram Mohan Roy, Rabindranath Tagore, Vivekananda etc., who were mostly nurtured on liberal education and rational thinking. They led a vigorous campaign for the eradication of many social evils including polygamy, child marriage, system of Sati etc. They strongly advocated widow remarriage and higher education for women. Under their pressure, the British rulers made laws for banning Sati and raising the age of marriage, both for girls and boys.

Women in Modern India

The attainment of Independence by India in 1947 gave a fillip to the struggle for improvement of status of women in various spheres of life. The women, who at the instance of Gandhiji had played an active role in the struggle for freedom, could not be denied freedom of thought and action. The Indian Constitution promulgated in 1950, forbade discrimination on basis of sex and guaranteed women, economic and social justice, liberty of thought and expression and equality of status and opportunity, side by side with men. In pursuance of the various provisions made in the Indian Constitution, a number of measures have since been adopted and the laws enacted for improving political, social and economic status of women. These laws provide for equal remuneration for men and women for equal work or work of equal nature. They insist on monogamy, allow inter-caste marriages and divorce for Hindu women with provision for

their maintenance allowance. The daughters along with sons can now claim equal share in the parents' property. A widow now has the same interest in the property which her husband had at the time of his death. She can also adopt a child under the Right of Property Act. The Dowry Prohibition Act discourages the extortion of dowry from the bride's parents. Under this Act, "all gifts, and wedding presents are to be deemed *Istri Dhan* of the bride over which she has full powers of disposal. A law 'Suppression of Immoral Traffic in Women Act' (SITA) has been enacted to check sale of innocent girls who earn a living for their owners, by prostitution.

The Muslims, as stated earlier, are governed by their Muslim Personal Law in matters relating to the religious and social matters. Some of the Indian Acts have, however, superseded certain Mohammadan laws. Restrictions have since been placed on polygamy and polyandry. Muslim law, as applicable in India, now considers polygamy as an institution to be tolerated but not encouraged. The courts in India have held that a second marriage by the Muslim husband is not a single but continuous wrong to the first wife. She can thus repudiate her marriage vows on the coming of second wife and divorce her husband. She can also sue for the dissolution of her marriage on number of other grounds which was not possible earlier. A Muslim girl is now legally free to marry after she attains majority. The minimum age of marriage (21 years for boys and 18 years for girls) is also applicable to Muslims in India. Many Muslim women, particularly those belonging to educated sections of their community, no longer observe Purdah and are coming out in greater numbers to participate in political, social and cultural life in the country.

These indeed are important developments bearing on the rights of women, some of which can be termed as revolutionary. The case of women has also received wide

support from the political leaders and other progressive elements in the country. Many time-honoured traditions are fast breaking down under the onslaught of modernity. The number of women participating in public and social life of the country is far greater today than ever in the past. We have women—both Hindu and Muslim—at the helm of affairs in practically every field of human activity. India has had singular honour of having a woman as a successful Prime Minister for about a decade and a half. The women in India today who occupy the prestigious positions of cabinet ministers, governors, vice-chancellors, legislators etc., outnumber their counterparts in other countries. The number of women in Central and State services and those occupying responsible posts as scientists, doctors, educationists, artists etc., is legion. The results of public examinations held for secondary and university courses indicate that in the matter of quality if not quantity, women have started leading men.

Yet it can be said without fear of contradiction that women are still far from attaining an equality of status with men. Males are still preferred to females and the girl children continue to be victims of discrimination in matters of nutrition and health care and consequently, the rate of mortality is higher among them. The child marriages are still in vogue and there is no appreciable decrease in dowry deaths despite the existence of legal provisions to check these evils. Actually, the men who occupy crucial positions in civil, police and judicial services and are responsible for enforcing the anti-dowry legislation, have the highest price tags in the dowry market and many of them had received substantial material benefit from the system at the time of their marriage. The widows in backward areas and among backward communities still have social stigma attached to them and the barbaric practice of Sati is still glorified in some parts of Rajasthan.

Future Prospects

The most significant development, however, is that far

larger number of women today have become conscious of their legal and constitutional rights and their rightful place in society. They are more than ever keen to protect these rights and secure justice for themselves. The media which are acutely conscious of their obligation in this regard, are making substantial contribution towards the amelioration of women's condition. There is no dearth of spirited young men who are prepared to support the cause of women. The women and youth voluntary organisations are there to voice loud protests when instances of injustice to women come to their notice. The Government is also alive to their responsibility in raising the status of women.

We just cannot afford to deprive ourselves of the benefit of active participation of almost half of our population for the country's political, social and economic development but this can be possible only if women are enabled to do so by giving them equal opportunities of education, health care, economic independence and ensuring for them social status on par with men in all respects.

QUESTIONS

1. Describe important features of Indian Society with particular reference to the Family System and the Caste System.
2. Discuss the problems arising out of multi-religious and multi-lingual nature of Indian Society.
3. "Social and religious tensions have been the bane of India's political and social life." Discuss.

What measures would you suggest to lessen these tensions ?

4. Describe the social and economic plight of the scheduled castes.

State the measures adopted or proposed to be adopted by the Government to improve their socio-economic condition.

5. Account for the vast difference between the living conditions of urban and rural people.

What steps have the Government taken to improve the social and economic condition of the deprived sections of the rural society ?

6. How far India has been able to discharge its responsibility towards children ?

Discuss the condition of children in India in the context of the U.N. Convention on "Rights of Children".

7. Do you agree with the view that in ancient India women were duly respected and even worshipped but they never enjoyed equality of status with men ?

Give specific instances in support of your answer.

8. What led to the progressive decline in position of women in the post-Vedic period and in medieval India ?

9. What have been the developments in independent India which have helped to improve the position of women in the country ?

What further steps should be taken to enable women to attain equality of status with men ?

10. Write notes on :

- (a) Muslim Personal Law
- (b) Child Marriages in India
- (c) Dowry System
- (d) System of Sati.



PROTECTION OF ENVIRONMENT

The earth has everything man needs ; only it cannot satisfy his greed.

— Mahatma Gandhi

One who plants one Peepal, one Neem, one Bar, ten flowering plants or creepers, two Pomegranates, two orange and five mango trees, does not go to hell.

— Varah Puran

“Rapid industrialization has left with us polluted rivers, contaminated soil, depleted wildlife and exhausted natural resources.”

We have discussed in an earlier section how science has revolutionised human life and the development of technology has helped us to lead more pleasant, more comfortable and longer lives. We have also explained that technological progress has not been an unmixed blessing and that it has equipped some of the governments with the deadliest of atomic and nuclear weapons which have the potential of exterminating all life from our planet. We shall explain in this section that the progress of science and technology is also leading to pollution of environment and a serious ecological imbalance which in the long run, can prove disastrous for mankind.

What is Environment ?

Let us first take up the pollution of environment. By environment we mean the immediate surroundings of an individual, plant or animal. It consists of air, water, food and sunlight which are the basic needs of all living beings and plant life, to carry on their life functions. In addition, environment also includes other living things, temperature, wind, electricity and air and water pressure. Man cannot survive without air, water and food. Actually no living being can remain physically independent of the essentials of environment even for a short time. Even when he is in space, a man needs an environment which is very much earthy. That is why the astronauts, while in space, breathe earthly air, eat earthly food, drink earthly water and can live only in earthly atmospheric pressure, temperature and humidity for which provision is made in their space ships.

1. DIFFERENT TYPES OF POLLUTIONS

Air Pollution

It is a tragic irony that air, the very breath of our life, is being progressively polluted by mechanised means of transport. As all of us are aware, our factories and automobiles are, by and large, run by the energy produced by coal and oil. These fuels have become almost indispensable as they help to produce, practically all the basic and secondary requirements of our lives. We have to set up more and more textile mills to produce the clothes we wear. Even to meet the fast growing requirements of food stuffs for an ever increasing population, we need more factories to build tractors and manufacture more fertilizers and insecticides. Actually modern life is unthinkable without machines and fuels like coal and oil that run them. The prized fuels, coal and oil are, therefore, appropriately called 'black diamond' and 'liquid gold'. Unfortunately these valuable fuels are among the worst offenders in the pollution of air.

Air Pollution—A Health Hazard

Factories with chimneys throwing out smoke into the air are the chief source of air pollution. Large clouds of smoke bellowing out of the chimneys of power generating stations which use coal as a fuel, constitute a more serious health hazard. In a power station, the coal is not completely burnt because of inadequacy of oxygen. Such incomplete burning produces carbon monoxide. These stations also throw out other dangerous chemicals like silver dioxide and nitrogen oxide, and a very large quantity of soot particles that float around in the atmosphere. If effective measures are not adopted to remedy the situation, the atmosphere would be replete with these dangerous chemicals.

Automobiles are the second largest polluters of atmosphere and in thickly populated areas with density of cars, vans, lorries, buses and other automobiles, pose a greater danger to the health of residents, since they are the largest producers of poisonous carbon monoxide and nitrogen oxide. Lead is another poisonous substance released by automobiles which is dangerous for human and animal life, more so because it is difficult to destroy it.

With growing industrialisation and the fast increase in the number of automobiles, the poisonous chemicals released into the air are steadily increasing. Their ill effects on the health of humans are already becoming visible. In Bombay, for example, where there is high concentration of factories and automobiles, 10 per cent more people suffer from asthma, bronchitis, coughs, colds and headaches than citizens of almost any other city or town in India.

Air pollution not only affects human beings, it is also injurious to plants, trees and animals. Certain chemicals in petrol or diesel fumes discharged by automobiles become poisonous substances when they come into contact with sunlight. These substances are highly injurious to sensitive

plants like the potato, tomato and tobacco and also some cereal crops and certain varieties of flowers.

Measures to Fight Air Pollution

For our sake and for the sake of our future generations, we cannot allow this pollution to continue at the present rate. But to put the clock back and revert to an age when there were no machines and no mechanical means of transport and communication, is just not possible. What then is the way out ?

One of the ways to fight pollution of air is to completely burn the combustible gases left half-burnt by power plants. Complete burning converts poisonous carbon monoxide into carbon dioxide which is harmless. There is an equipment known as 'Flair' which can do this. However, many factories are not inclined to invest in pollution control equipment and thereby increase the cost of their products and thus lose in a competitive market. The Government should, therefore, enact legislation to make it obligatory for all factories to install pollution control equipment to reduce pollution of air.

Similarly, there are certain gadgets which can be fitted into automobiles and can control or almost fully eliminate pollution, depending upon their cost. For example, a 'Recycler' can get rid of the poisonous unburnt hydrocarbon compounds in the engines. An efficient but more expensive gadget known as 'Muffler' can remove 90 per cent of pollution from automobiles.

In view of lack of social consciousness and also because of the high cost of pollution control gadgets, most of the owners of the vehicles do not buy them. The Government can, therefore, make it obligatory for the manufacturers of these vehicles to fix them before placing them for sale in the market.

As stated earlier, power stations using coal and oil for generating electricity, are the major sources of air pollution.

Now that some of the technologically advanced countries, including India are in a position to use atomic power for the purpose of generating energy, they should progressively tap this alternative source, for meeting the energy requirements. In this case, however, it would be absolutely essential to dispose of completely the radioactive wastes emanating from atomic power stations since they can pose a serious threat to the health of all living beings.

The use of solar power as an alternative source of energy also appears to be an attractive and promising alternative, since it is cheap and completely pollution free. The advances made so far have made it possible to use it only on a small scale but its use on a large scale seems to be a distinct possibility. Recently a solar thermal power station has been set up in Haryana and quite a few other states in the country have shown interest in this pioneering project. Efforts, throughout the world, are also being made to develop devices which could enable man to harness natural resources such as the wind, tides and ocean waves for producing energy.

So far the means of transport are concerned, pollution-free electricity has also replaced coal and oil in many cases. The progressive use of electricity in running railway trains is already an accomplished fact. Efforts for further electrification of the railway system would indeed be welcome.

Water Pollution

Air pollution is not the only serious problem facing mankind. Water pollution is also causing concern to man. According to the current data, the volume of water on our planet is more than 1400 million cubic kilometres. About 94 per cent is concentrated in the oceans and the remainder is in the lakes and rivers and under the ground. Water available for drinking is only 2 per cent of the total water available on the planet, and this supply cannot be sufficient for an indefinite

period for the world population which is increasing at an enormous speed. It is a matter of further concern that as in the case of air, our factories are also proving instrumental in polluting water resources including sources of drinking water.

Pollution in Rivers

Let us take the case of most sacred river 'Ganga'. 'Ganga Jala' was considered so pure by our ancestors that they preserved it and poured a few of its drops into the mouth of a relative when he was on death bed. Today the water of the Ganga is so polluted at places that it can hasten the death of a person. During the past few decades, a number of factories have sprung up all along its route from the Himalayas to the Bay of Bengal and their poisonous waste products are polluting its water, day-in and day-out. At Varanasi, for example, a large oil refinery dumps into this sacred river several tons of waste products. Besides, thousands of litres of sewage are poured into the water at several places. Similarly, our other rivers including the sacred river Kaveri in the south are becoming the dumping grounds for poisonous chemicals from factories, agricultural wastes, insecticides and even acids.

Pollution is not peculiar to rivers in our country. The position is worse in case of some highly industrialised countries. In U.K., for example, the river Thames flowing through London had become so filled with poisonous chemicals from industrial and chemical wastes and sewage around 1950, that it could not sustain any life. It was only a decade later that as a result of the growth of social consciousness about pollution and the adoption of effective remedial measures, the level of oxygen in its water increased and fish could be seen in areas where they had become totally extinct. Similarly all the river systems in U.S.A. have been dangerously polluted and if the pollution continues at the present rate, they will not be able to support any living thing such as fish, by the turn of the present century.

Lakes and Ponds

Our beautiful lakes and spacious ponds face a still greater danger. Their very existence is threatened. The Dal and Nagin lakes in Kashmir are being rapidly choked by multiplicity of weeds, which were just not there a few years ago. Their abundant growth is the result of the left-overs of the meals which hordes of irresponsible tourists continue throwing in them. The Loktak Lake in Manipur, the Chilka Lake in Orissa and the famous lakes at Nainital and Ooty are also similarly threatened. The Loktak Lake has become so dense with vegetation that one can walk on it.

The Oceans

Even the oceans have not been spared from pollution. They are receiving the discharge of waste products in increasing amount and variety. Fuels, minerals, food and forest products used by man for social, agricultural and industrial purposes, are dispersed on the surface of the earth in different forms and ultimately a major portion gets dumped into the sea.

Besides, several thousands of tons of poisonous mercury components used as fungicides, the lead used in special types of petrol, other fumes discharged by the automobiles and huge quantities of DDT, increasingly used as insecticides and not absorbed by plants, are washed away by rain and a large part of these harmful chemicals are transported by rivers and eventually find their way into the ocean.

The real problem is that mercury, lead, DDT and other poisonous substances being deposited in the ocean cannot be taken out. They are most likely to affect the flora and fauna in the depths of the ocean. In the oceans, every living thing eats other living things and in turn is eaten by others. In this way they form what is known as food chain. Since the substances like DDT and other insecticides are known to destroy the

smallest of living beings in the ocean, they are sure to affect the food chain and even affect the biology of the ocean.

Another important source of ocean pollution is petroleum. More than half the oil produced in the world is transported across the oceans by ships and a part of it is lost by spillage and leakage. In the oceans, encircling India alone, there is spillage of 100,000 tons of oil annually. The pollution caused by the spread of oil on the surface of the ocean has resulted in smothering of beaches in black slime, ruining them from the tourists' point of view and killing of thousands of sea birds and destruction of fish harvests.

It is a matter of some relief and consolation that of late the Government and the people have become conscious of the dangers posed by pollution of rivers and other sources of water. The Government, for example, have already undertaken a massive project to clear the river Ganga by stopping the flow of industrial effluents containing dangerous chemicals from the factories and thousands of litres of sewage from urban areas located on the banks of the river. Necessary steps may also have to be taken to clean other rivers and water resources and stop them from further pollution.

Earth Pollution

Pollution has not only invaded air and water but it is also having adverse effect on earth, materials, vegetation, etc. During the last few decades, man has been throwing out garbage and solid wastes to an extent which pose a threat to his well-being. An Indian family, on an average, throws out at least half a bucket of garbage—left-overs of cut vegetables, paper, polythene bags, worn out clothes and a variety of other rubbish. While a large part of this solid waste goes into garbage yards, a considerable amount is scattered all over the places, spreading filth all around us.

Then there is the problem of accumulation of dust and soot particles (together called particulates) floating in the air.

Carbon and soot particles result from the burning of agricultural wastes which include substantial quantity of rice crop wastes. The particulates are man-made, but they at times are also thrown into the atmosphere by eruption of volcanoes. The scientists are of the opinion that an increasing concentration of these particulates can bring about a change in the climate of a country, through lowering of heat energy on the surface of the earth.

In the recent time, changes made in the landscape through indiscriminate deforestation and over-grazing of grass lands by cattle, have increased the amount of dust thrown into the atmosphere by wind.

Incidentally, the environmental pollution is also causing an irreversible damage to historical monuments which are symbols of our cultural heritage. Slow disfiguring of rare monuments like the Taj Mahal at Agra because of acidity and polluted air, have been causing serious concern to environmentalists and lovers of art, for quite some time.

Fortunately, there is evidence of growing consciousness among people about the danger of environmental pollution. More and more people have started feeling that it is essential to strike a balance between the industrial growth and pollution problem. In order to minimise the pollution of the earth, the household wastes should be disposed of in garbage-bins provided by local bodies. Farmers must not burn agricultural wastes recklessly. Necessary arrangements also need to be made on a large scale to recycle and reuse discarded articles, particularly non-degradable materials like plastic bags and glass bottles.

The Indian biogas technique can help in the conversion of livestock manure and crop residues into energy through gobar gas plants which are becoming increasingly popular in the rural areas. There are as many as 100,000 such plants working in the villages in various States. The technique is all

the more welcome, since this constitutes source of renewable energy and does not cause any pollution whatsoever. An efficiently operated gobar gas plant can easily meet the heating, lighting and cooking needs of an average family.

We have so far spoken about the pollution of all the three states of matter—solid, liquid and gas. Modern life has given rise to a new form of pollution and that is noise pollution. Crowded cities, mechanised means of transport, new devices of recreation and entertainment are polluting the atmosphere with their continuous noise. Hooting of horns, shrieking of loud speakers, rumbling of machines and vehicles, blaring of music at high pitch—all these have come to be accepted as inevitable part of modern civilisation. They, however, are continuously disturbing human peace and tranquility. A high level of continuous noise is also harmful for our nervous system.

2. DEPLETION OF NATURAL RESOURCES AND ECOLOGICAL IMBALANCE

Science of ecology deals with relationship of animals including human beings and plants to one another and to their environment. In the course of the evolution of life on earth, certain delicate balances have been built. Every living and non-living thing on earth affects and is affected by many other organic and inorganic elements. These are thus inter-dependent. If these balances and inter-dependences are sufficiently altered, it upsets nature's equilibrium and results in ecological disturbances which can be seriously damaging for man-kind.

We have already discussed air, water, land and noise pollution which have caused imbalances in man's environment, which, if unchecked, are sure to endanger life on earth. We have also explained that the development of science and technology and the resultant unprecedented upsurge in industrial activity is responsible for environmental

pollution. It would, however, appear that the basic cause of this pollution is ever increasing population, whose requirements make increasing demands upon the earth's natural resources which in turn, result in the formation of more and more wastes that pollute air, water and soil. Environmental conditions would not perhaps have been as chaotic as they are, if man had kept his requirements within reasonable limits. His overpowering greed has urged him to exploit natural resources and produce goods with a vengeance and that has further worsened the situation. The scientists have estimated that if the extraction of metal resources from the bowels of the earth continues at the present rate, aluminium will last for 57 years, iron for 250 years, zinc for 22 years, copper for 29 years, lead for 19 years and tin for 35 years. The chemical fuels *i.e.*, coal, oil and gas may also not last for more than 150 years. This indeed is a gloomy picture and man might have to discover substitutes for these precious metals.

Conservation of Forests

We know that plants and animals live together in mutual inter-dependence. The need for conservation of forests and wild life cannot, therefore, be over emphasised. Forests are the only source of timber and a rich source of fuel and other valuable products. They guard against erosion of land, damage to water sheds, floods and sedimentation. They have a salutary effect on climate, water and soil. The forest cover also lowers the maximum temperature and raises the minimum temperature. It is, therefore, a matter of serious concern that we have failed to preserve the country's forest wealth from being depleted at an alarming rate. The forestry resolution passed in 1952 had recommended a national target of 100 *mh* of forest and today we have only 74 *mh* officially notified forest lands. The area covered by good natural forests is even substantially less than that. It has been estimated that forests in India are being lost at the rate of at least 1.5 *mh* per

annum. It is, however, heartening to note that during the last 4 years, in response to the Prime Minister's call for a massive afforestation programme, some commendable efforts have been made to create man-made forests at the rate of 2 *mh* per annum which is slightly higher than the annual depletion rate. We shall have to keep up our effort in this direction if we want to save our country from severity of droughts and floods caused by the growing deforestation and denudation in water sheds. Further, forest conversions to meet the industrial and agricultural needs of the country and unauthorised and indiscriminate felling of trees by miscreants shall have to be regulated and controlled through legislative and administrative action. Afforestation programmes with emphasis on social and environmental forestry also need to be undertaken on a big scale, with active participation of people who, in view of their traditional respect for trees should be willing to cooperate.

The Government appears to be quite conscious of their responsibility in the matter. It has already announced a new forest policy for the country. It has also drafted a comprehensive legislation with a view to updating the Indian Forest Act and prescribing stringent punishment for those destroying forest cover.

Mining and Multipurpose Dams

Mining and construction of multi-purpose dams are two important industrial activities which should be mentioned in the context of deforestation. Most of the ore deposits in our country happen to be located in the forested pockets which are largely inhabited by tribal population. Mining projects, therefore, inescapably result in deforestation on a massive scale and displacement of tribals. Extraction of industrially useful metals, required to meet the developmental needs of the society, cannot be given up for obvious reasons. It is, however, absolutely essential that to make up the loss caused

by depletion of forests as a result of mining activity should simultaneously be accompanied by action plans for biological restoration.

What has been said in case of mining activity is also true of construction of dams with the difference that the loss of flora and fauna and dislocation of people in this case is on a large scale, and damage to ecology more serious. Further, there is a sizable volume of knowledgeable opinion according to which construction of big dams are perhaps not cost effective if the expenditure on afforestation and rehabilitation of uprooted people, apart from social, cultural and environmental cost involved in the process, are taken into account. It is also being increasingly felt that large number of smaller dams involving far less damage to ecology and environment could meet the requirements of development.

It is in view of these considerations that two major hydro-electric projects on Narmada river and the Tehri Dam project in Garhwal Himalayas have been subject of fierce controversy. The ecologists and environmentalists backed by strong local sentiment have been able to stall the building of Silent Valley Project in Kerala, the only tropical rain forest in our country with a rich variety of rare plant life.

Protection of Wildlife

Wildlife needs to be protected as essential part of environment. It is also important to conserve animals and birds for their valuable gifts. Indian wildlife is incomparable in its variety. It is here, for instance, that the tiger, the lion and the leopard roam about in the same country. Elephants and the one-horned rhinoceros are found here in abundance. India has more types of the graceful deer and cats than any other country in the world.

The Government has set up 130 national parks and sanctuaries for the protection and preservation of wildlife.

Laws have been passed to protect the endangered species and punitive action is taken against those hunters who indulge in their illegal and senseless killing and the poachers who hunt them out for personal gain. 'Operation Tiger' is one of the better known projects that had been successfully launched by the Government for the protection of a fast vanishing species of the tiger.

The foregoing account of man and his environment would make it clear that the future of mankind and even his ultimate survival is intimately linked with the protection of environment and maintenance of ecological balance. It is a matter of great satisfaction that of late there has been a growing world-wide consciousness of this inescapable reality. The people are coming out in protest against the dumping of wastes, pollutants and industrial effluents. 'Green' movements have become popular in USA, Europe and Australia. In India 'Chipko' movement has caught the imagination of people. In some of the European countries, elections are being fought with protection of environment as an important issue. In Netherlands, for example, there is a great deal of environmental consciousness and the Government, some time back, took a decision to cut pollution by 70 per cent by the year 2010. There was, however, a difference of opinion between the two major constituents of the Government as to whether the car owners should be made to pay or other avenues should be explored for raising the funds for the implementation of this policy. It would be interesting to note that the Prime Minister of the country could not carry the other constituent of his coalition Government with him and the Government fell in May 1989 on this issue. The long term policy for the reduction of pollution in that country, of course, stands.

The above incident has been described only to underscore the importance that the governments and people in various countries have started attaching to the need for protection of environment and ecology and this augurs well

for the future of mankind.

QUESTIONS

1. What are the major causes and consequences of air pollution ? What measures do you recommend for fighting the dangers posed by air pollution ?
2. What causes pollution of rivers, lakes and oceans ? What steps the Government have taken to fight pollution of water resources ?
3. What contributes to earth pollution ? How far the biogas techniques and renewable sources of energy can help in checking environmental pollution ?
4. Discuss in detail the urgency of conservation of forest resources in India.
5. "Development of technology has been mainly instrumental in pollution of environment and ecological imbalance." Discuss.
6. Write short notes on :
 - (a) Gobar gas plants
 - (b) Noise pollution
 - (c) Ecological imbalance
 - (d) Wildlife conservation.
7. To what extent construction of multi-purpose dams and mining activity contribute to ecological imbalances ? How can you minimise the harm that these projects cause to ecology ?

□ □

UNIT IV

NATIONAL UNITY

Religion is a transforming experience ... It is spiritual consciousness. Belief and conduct, rites and ceremonies, dogmas and authorities, are subordinate to the art of self discovery and contact with the Divine.

— S. Radhakrishnan

The various religious communities are divine treasures entrusted to us by God. We must love them as such. It should be our firm faith that every religion is blessed by Him. The Eternal King showers His favours on all men without distinction.

— Akbar, the Great

Communalism is an evil which divides men and fragments society; it goes against our very genius and cultural heritage. It holds a threat to the unity and integrity of our country which must be our foremost concern.

— Indira Gandhi

Some kind of unity has occupied the mind of India since the dawn of civilisation. That unity was not conceived of as something imposed from outside, a standardisation of externals or even beliefs. It was something deeper and within its fold, the widest tolerance of belief and custom was practised, and every variety acknowledged and even encouraged.

— Jawaharlal Nehru

The general idea of a nation is a group of people living under the same political order in the same state. The acceptance of a certain political order in, more or less, a general way and sharing of common citizenship are the two essential conditions of nationhood. There are, however, certain other characteristics which make extremely important contribution towards the formation of a strong and a stable nation. They relate to geographical compactness of the state, a common history and unity of cultural life, religion and language. However nowhere in the world does there exist a nation which possesses all these characteristics. There are many nations who do not have a common history and whose members profess different faiths and speak different languages. Let us examine as to how far we Indians fulfil the conditions necessary for qualifying for nationhood and to what extent, we have been able to achieve national unity.

1. DIFFERENT TYPES OF UNITIES

Geographical Unity

So far as geographical unity is concerned, India is one of the few countries in the world, endowed with natural boundaries. We have impassable ranges of Himalayas in the north and north-east and have sea in the south, south-east and south-west which constitute the most sharply defined natural boundaries. In the north-west also, beyond artificially created frontiers between India and Pakistan, there are equally well-defined natural barriers. India could not have asked for more effective defence against aggressive invaders and fury of elements of nature. Geographically speaking, no other country was perhaps better qualified to be a 'country'. India also has all the natural resources, necessary for development of a balanced economy, which can make her almost self-sufficient.

India's Common History

A common history is another factor that binds the people of India together. Most of the people who came to India from other parts of the world, have been living with the original inhabitants for thousands of years. A gradual process of assimilation has now made them an integral part of Indians. During the course of India's history, if there has been political oppression or economic exploitation by certain vested interests, they have been the common sufferers. During 200 years of British rule also, they have suffered the same lot and have passed through the same political and economic bondage and economic exploitation by the same foreign power.

Cultural Unity

Culture is a sense of ultimate values possessed by a particular society and expressed in its collective institutions, and by its individual members in their feelings, attitudes and manners. These characteristics are shaped and influenced by various factors and the physical and economic factors are important among them. India is a vast country and we come across great variety in her landscape, climate and life situations. As a result, Indians have been mentally attuned to accept differences, divergence and diversity, without much difficulty. By nature, they have been tolerant of customs, conventions and beliefs, different from their own.

Throughout her cultural history whenever India was faced with powerful external or internal influences, a process of accommodation, assimilation and transformation has been at work. The synthesis achieved by the country, first by the fusion of Aryan and Dravidian, then of the Hindu and Buddhist and lastly of Hindu and Muslim cultures can be quoted as examples in this regard.

In the words of Pt. Jawaharlal Nehru : "Some kind of unity has occupied the mind of India since the dawn of

civilisation. That unity was not conceived of as something imposed from outside..... It was something deeper and within its fold, the widest tolerance of belief and custom was practised, and every variety acknowledged and even encouraged”.

Thus during India's cultural history of several thousand years, “a subtle but strong thread of unity” has been running through the infinite multiplicity of her life. At times this broad cultural unity did suffer serious setbacks as a result of political upheavals but with diversity as its distinguishing feature, it never ceased to exist.

2. BASIC UNITY OF INDIAN RELIGIONS

Now about Indian religions. According to Dr. S. Radhakrishnan, the world-known scholar and philosopher, “Religion is a transforming experience ... It is spiritual consciousness. Belief and conduct, rites and ceremonies, dogmas and authorities, are subordinate to the art of self discovery and contact with the divine”. Viewed in this context, all religions seek to establish a communication between man and his God. Besides, there is a fundamental unity among all religions in as much as all of them teach similar doctrines and similar principles of ethics and morals and stress certain fundamental qualities of character, such as honesty and truthfulness, consideration for others, reverence for old age, kindness to animals and compassion for the needy and the suffering. These cannot therefore be a cause for conflict among people merely because they follow different religions.

This view is in conformity with the Indian tradition based on spirit of tolerance. The emperor Ashoka in one of his rock edicts proclaimed, “One who reverences one's own religion and disparages that of another from devotion to one's own religion and glorifies it over all other religions, does injure

one's own religion most certainly. It is verily concord of religions that is meritorious". Centuries later, the Moghul emperor Akbar affirmed, "The various religious communities are divine treasures, entrusted to us by God. We must love them as such. It should be our firm faith that every religion is blessed by Him. The Eternal King showers His favours on all men without distinction".

This view was subsequently sanctified by the saints and sufis—both Hindus and Muslims—who were products of fusion of the two religions and who created an atmosphere of not mere toleration but of harmony which led to amicable coexistence between the common followers of the two faiths.

Even today, the practical moral codes of the two communities are alike, partly because of the basic similarity of their religious experiences and partly due to their common physical and economic circumstances. Both Hindus and Muslims greatly value human affection, generosity, hospitality, social service and kindness to one's relatives. They also lay great store by such virtues as temperance, modesty and chastity. There are also marked similarities between the family lives of the members of the two communities. Their food, dress and general way of living and in the northern part of the country, their rites and ceremonies connected with birth, marriage and death are also similar.

But the most powerful force which binds Hindus and Muslims on an emotional plane, is their deep interest and commitment to the fine arts practised by both the communities. In every branch of art, artists, belonging to both the communities, show a spirit of real brotherhood which provides a bright hope for the cultural unity of India.

Then there are certain other factors such as the English language, democratic concepts and general liberal outlook and a scientific attitude of mind, which as a result of modern western influence, are of common interest to the progressive elements in both the communities.

Vested Interests behind Religious Discord

It will thus be seen that pure religion and even religious practices should not normally become cause of conflict between Hindus and Muslims and for that matter, among the followers of other religions ; yet we find that there have been a number of communal riots during the pre-independence period and these clashes have not ceased to occur after independence. It, therefore, seems necessary to analyse the causes that led to communal clashes during the British period and whose recurrence at frequent intervals continues to be a source of serious concern to the Government and people of India.

As explained earlier, religion is a great motivating force, and is intimately bound up with the formation of character and the inculcation of ethical values. The trouble, however, starts when the outward symbols of a religion and places of worship or dogmas, and rites and ceremonies associated with it, become more important than its true spirit or basic principles. It is at that time that the persons with vested interests and ulterior motives exploit these superficial differences for their narrow personal ends. Prior to the attainment of independence, the Britishers played upon these differences to make a success of their policy of "divide and rule". Further, we feel that communal clashes at that time, generally did not occur spontaneously on account of religious differences but were engineered by interested parties for non-religious motives. This becomes clear when we see that they took place during a period of political unrest or economic stress and became particularly violent at the time of local, state and parliamentary elections and were led by those who were close to the British rulers rather than to the Ruler of Universe.

Some sections of religious minorities, justifiably or otherwise, feel that they have had a raw deal in the economic and political field. The presence of feelings of frustration and

insecurity among the minorities, does not augur well for the cultural unity and stability of the Indian people. Some of the disgruntled elements easily become the tools of subversive forces inside the country. Even otherwise if large masses of people fall prey to despondency and despair, they become incapable of making any worthwhile contribution to the progress and development of the country. It is, therefore, desirable for all of us to give due place to and show proper respect for the diverse elements in Indian religions and culture and thereby promote a harmonious unity in diversity.

Let us now take up the question of a language for the country. The British, during their rule, had made English as the official language. Nobody could question it since the British rulers were not responsible to anyone for the way they carried on the administration of the country. After independence when a fully representative government came to power, the administrative affairs were expected to be conducted in a language which the common people understood. Accordingly, the governments in the provinces (since designated as States) decided to replace English by their respective regional languages. The difficulty, however, arose when the leaders at the helm of affairs at the centre, were called upon to choose a language for the official business of the Union, for correspondence between the Centre and the States and between one State and the other. Before independence, the Indian National Congress, under the leadership of Mahatma Gandhi had recognised Hindustani as national language and it was then expected that it would be the language of the Central Government, in free India. However when the time came for deciding the issue, the Constituent Assembly, the body charged with the responsibility of laying down a constitution for the country decided after a heated discussion and with the majority of one vote that Hindi in Devanagari script would be the official language of the Union.

The opposition to the decision was based on three factors. The supporters of Hindustani contended that Sanskritised literary Hindi would be understood by comparatively small number of people in the country. The non-Hindi speaking people, particularly those from the south, felt that in case of adoption of Hindi as the official language of the Union, they would be at a disadvantage while competing for the Central and All India Services. People with a western background who had been impressed by the richness of the English language had expressed the opinion that Hindi and for that matter, any other language was not sufficiently developed to take the place of English as the official language of the Central Government.

These objections appeared to be valid. Accordingly the Indian Constitution itself provided certain safeguards in this connection. A directive was given that Hindi should be so developed as to assimilate words and forms of common use from other Indian languages, so that it could be widely comprehensible and more acceptable. It was also provided that English must be continued to be used along with Hindi as the Union's official language upto 1965 and even after that, if felt necessary.

The Government of India has since been making earnest efforts to promote wide use of Hindi for official purposes at the centre and though it has met with some success, it has not been possible to discontinue the use of English which continues to hold sway. It is difficult to say how long the use of English would continue as the official language along with Hindi, in view of the statutory guarantee given to non-Hindi States about the indefinite continuation of English if they so desired. Practically all the State governments have adopted their respective languages as their official language and the Central and State governments are making all possible efforts for their promotion and development.

It also appears relevant to add that in view of the conciliatory attitude adopted by the Central government and the provisions made for safeguarding the interests of non-Hindi speaking people through the introduction of regional languages, in addition to Hindi and English, as the media of examinations for recruitment to Central and All India Services conducted by UPSC, there is less opposition to the acceptance of Hindi as the link language.

3. UNITY IN DIVERSITY OF INDIAN LANGUAGES

The people in India speak as many as 15 major languages including English and far larger number of dialects. Normally any country should be proud of multiplicity and variety of the languages spoken by its people. In India, however, they have at times, proved detrimental to cultural unity. The consciousness of belonging to a distinct community, speaking the same language, is natural and legitimate. But if that community considers that other Indians living in their State or adjacent areas who speak a different languages, are outsiders and are therefore not entitled to rights and privileges in the matter of jobs, educational facilities etc., then it is practising what is called linguistic communalism. In certain parts of the country, there have at times been violent clashes between the protagonists of the two different regional languages who were keen on amalgamating certain areas contiguous to their State, on the plea that the residents of these areas belonged to their linguistic community. This amounts to sheer linguistic chauvinism and can harm the unity and integrity of our country.

A national study of the linguistic situation in the country would reveal that there is a blood relationship among a large number of Indian languages which have developed from the same source, i.e., *Vedic* language. The *Vedas* which are most ancient compositions in world literature, are composed in a

language which was current in *Vedic* times among the inhabitants of north western country. The well-known grammarian Panini who lived in Punjab, polished the *Vedic* language to greater refinement and regularity. The language came to be called Sanskrit after its reform at the hands of Panini. India is a big country and cannot be expected to speak a single uniform and homogeneous language. The means of transport and mutual intercourse being limited, such a uniformity was rendered all the more difficult. A thousand years after Panini, Sanskrit broke up into varied forms, fell from its polish and purity and became current in the name of *Prakrits* in various parts of the country. Sanskrit, of course, continued to be used as language of literature in limited manner and even spoken among a few learned sections of society. Variation between various scripts also became visible. Pali was spoken language in Magdha (the middle Bihar). Pishachi was current in Punjab and Sindh. Maharashtri was gaining ground in central India while Gauri was evolving among the Bengalis. With the passage of time, these languages and scripts went on diverging from each other. A thousand years more, and we witness the modern Indian languages and scripts gradually taking shape in various States. It is thus clear from the historical development of languages that all the northern languages, namely Assamese, Bengali, Hindi, Marathi, Gujarati, Punjabi, Kashmiri, Oriya and Sindhi are clearly inter-related. It appears as if they are daughters of the same mother and the same blood runs through their veins. The knowledge of one of them can, with little effort, lead to comprehension of the others.

So far the four southern languages—Tamil, Telugu, Kannada and Malayalam—are concerned, they are not directly related to *Vedic* or Sanskrit language but because of unity of literary and cultural tradition of the country, they have been greatly influenced by Sanskrit. Today the number of Sanskrit words in these southern languages is so large that they appear

close to north Indian languages. It, therefore, seems highly irrational to have one of Indian languages as mother tongue and show hostility to others and their users. The Indian languages should basically serve as media of unity rather than hatred.

4. MEASURES FOR PROMOTING NATIONAL UNITY

Removal of Social and Economic Disparities

It is thus clear that many unifying factors—acceptance of a common political order, geographical compactness of the country, basic unity in their culture, religions and languages and a common history—entitle Indians to be called a nation. It is however not sufficient to be eligible for nation-hood. It is far more important to ensure stability and strength of the Indian nation. We have already stated that unity in diversity is the distinguishing feature of our society. In order to achieve stable unity of Indian nation, it is necessary that we recognize and appreciate the diverse elements in our social, religious and cultural life and try to solve the special problems faced by the religious and linguistic minorities through a spirit of understanding, tolerance and consideration.

There are also certain other factors that continue to pose a serious threat to the unity of the country. There is so much regional imbalance, economic disparity and social inequality in India that unless immediate remedial measures are adopted, the economically dispossessed and the socially backward people whose number is legion, are likely to lose confidence in our social and political system and this can spell disaster for unity and integrity of India. In other words, national unity and integrity in the Indian context, means the steady translation of the national goals of socialism and secularism into reality with rapid socio-economic development.

In India, there is also crisis of basic human values as a result of which corruption and nepotism seem to have become

inevitable part of our political and social life. The removal of untouchability, viable solution of the problems of, unemployment and poverty, emancipation of women, care of the aged, eradication of social evils like *sati*, dowry etc., and restoration of respect for social, moral and spiritual values deserve to be given top priority by the Government and the people. At the same time, all divisive and separatist forces need to be put down with an iron hand and all fissiparous tendencies curbed by decisive action.

Role of Educational Institutions

Education is inherently an integrating tool. Educational institutions can therefore play a significant role in promoting national unity. National integration is a matter of right attitudes and right sentiments on intellectual and emotional basis. Schools should create in the impressionable minds of the youth, a sense of Indianness which would transcend local, regional, religious or linguistic loyalties. Practice is always better than precept. It is therefore necessary that the head of the institution and other teachers should be living examples of integrated personalities, free from religious bias or parochial thinking. Further, no religious, linguistic or regional considerations should be permitted to influence the policies, programmes and activities of the educational institutions.

The teaching in schools should emphasise the basic unity in the ethics and morals of different religions so that the students develop a healthy respect for other religious communities and tolerance for their religious practices. Similarly, in the course of teaching languages and social studies, greater emphasis should be laid on generating and fostering broad national outlook. If necessary, the text books in these subjects should be revised to delete all portions which generate ill-will and promote separatist tendencies. An emphasis on the composite culture of India will go a long way in fostering national unity in the country.

The organisation of national tours to places of historical and cultural interest and participation of students in the projects and the activities beneficial to the community, would also help in communal amity and national cohesion.

There is also a need for apprising the students of the significance of national regalia like the National Flag, National Anthem and the National Insignia and inspiring among them due respect for these symbols of national unity.

In order to promote respect for languages and literatures of other regions of the country, it is also desirable that the students are encouraged to learn languages other than their mother tongue and the link language of the country.

Other Measures

It appears relevant to mention here some positive steps that the Government and some national agencies have taken to strengthen the social and cultural unity of the country. There is sufficient realization of the fact in the official circles as well as socially conscious sections of society that it is almost impossible to ensure the unity and stability of our vast and complex country unless we solve the problem of social and economic exploitation of the depressed classes classified as scheduled castes and scheduled tribes who constitute a vast majority of the under-privileged people in our country. In order to raise their educational standard and improve their economic and social status, the Government continues to provide for necessary reservation of seats in Central and State legislatures, a certain quota of posts in public services and special facilities for education in academic and professional institutions.

Steps have also been taken to strengthen cultural unity among various regional and linguistic communities through promotion and propagation of literature and arts from all parts of the country. Sahitya Akademi, Lalit Kala Akademi and Sangeet Natak Akademi—the three academies under the

Central Government have been implementing a number of programmes and projects. The National Book Trust, a body set up by the Government of India to promote reading habit and book culture in the country, has undertaken a number of programmes of national character such as National Book Week and National Book Festivals and also as scheme known as *Adan Pradan* which provides for translation and publication of some outstanding books from one language into all other Indian languages. For the same purpose, the organization of the National Youth Festival and other events like *Apna Utsav* being held at the instance of the Government are steps in the right direction. Growing common participation in the festivals of various religious and religious communities is also a healthy development. The measures adopted by the Government for the protection of monuments of national and historical importance and promotion of ancient literature, which constitute our common cultural heritage, are also to be welcomed.

Study of Indian struggle for freedom can be equally inspiring for students belonging to various religious, religious and linguistic communities. The steps taken by educational authorities at the Centre and in various States to encourage and promote its study in schools is most likely to be helpful in inculcating in young minds, patriotic feelings and the spirit of sacrifice for the good of the country. The efforts that are being made to help students to develop a scientific attitude of mind, would enable them in the long run, to make an objective assessment of religious and social problems that they may be called upon to tackle as citizens of a secular and democratic country.

We have already talked about the "strong thread of unity which runs through the infinite multiplicity of her (India's) life" but "this thread was not woven by stress or pressure of power groups but by the vision of seers, the vigil of saints, the speculation of philosophers and imagination of poets and

artists". In future too, we need to make conscious efforts to ensure that this thread does not lose its strength.

QUESTIONS

1. What are the conditions necessary for qualifying for nationhood ? To what extent Indians fulfil these conditions ?
2. How shall you define religion ? How is it that despite the fundamental unity underlying Indian religions, there have been frequent clashes between the two major religious communities in the country, before and even after independence ?
3. Describe the role that schools can play in promoting national unity.
4. Amplify the statement : "The Indian languages should basically serve as media of unity rather than hatred".
5. Describe the factors that have inhibited India's efforts to achieve national unity. What measures would you suggest to achieve this goal ?



INTERNATIONAL PEACE AND UNDERSTANDING

Mankind must put an end to war or war will put an end to mankind.

— John F. Kennedy

"Since wars are born in the minds of men, it is in the minds of men, that the defences of peace must be constructed."

— Preamble to the UNESCO Constitution

While hunger rules, peace cannot prevail. He who wants to ban war must also ban mass poverty.

— Willy Brandt

1. IMPORTANCE OF PEACE

Throughout ages, wars have formed an integral part of human existence. They have been fought for a variety of reasons—for self-preservation, for enhancement of power and prestige, for acquisition of wealth and riches, for protection of vested interests and for wreaking vengeance on adversaries. They have also been fought in the name of religion, for the ostentatious purposes of protecting truth and justice, saving democratic norms and human values and at times, paradoxically enough, for securing peace for people. Irrespective of the fact as to who won these wars, they have

generally spelt disaster for the common people. History bears a witness not only to the enormous loss of human lives but also to the untold misery and sufferings that wars have brought to countless people.

The saner elements in various parts of the world have raised voices against wars through the centuries. There is scarcely a country or a continent in which there have not been outcries against their cruelty, stupidity or futility. The prophets of all religions have also underlined significance of such virtues as peace, love, friendliness, tolerance, etc., which promote better relationship and understanding among individuals and groups. They have also decried such vices as hatred, violence etc., which cause hostility and strife among them. The human qualities, common to all religions, have come to be recognised as their fundamentals and are expected to be practised by true followers of all religions.

Despite all this, wars have been and continue to be waged, primarily because the powerful vested interests or the men at the helm of affairs have all along felt that resort to arms was the most effective and speedy means of achieving their objectives and many people have believed in their inevitability. Further, the people at large, have little say in making decisions about wars and they have considered them as necessary evils. As a result, peace however desirable, has remained a dream. It has been more often an object of longing and a goal than a living reality.

However, in view of the introduction of chemical and biological weapons during the earlier part of the present century and subsequent development of nuclear armaments with potential for mass destruction, man cannot afford to consider war as a necessary evil. There are at present 50,000 nuclear weapons in the world whose total explosive power is 2 million times that of the atom bomb which was dropped on Hiroshima in Japan during the Second World War. It is a

universally recognised fact that a global nuclear war would result in devastation and suffering on a scale totally unknown in human history. It would destroy not only human civilisation but all life on this planet. The eventuality is too terrible even to be imagined. We have, therefore, no option except to consider ways and means to legitimise war and work seriously for enduring universal peace. In this context, it appears pertinent to quote the lucid words of a great man, now departed, John Kennedy, the erstwhile President of the USA who had declared, "Mankind must put an end to war or war will put an end to mankind". Viewed in this context, peace is not only as precious as it has always been. It is far more precious today.

2. VARIOUS PATHS TO PEACE

However, before we consider a ban on production and use of nuclear weapons or general disarmament as an effective means of preventing war and promoting and strengthening peace, let us discuss some other measures that people have tried or might try to achieve peace between nations.

Removing the Source of Threat to Peace

Removing the source of threat to peace is a traditional concept which has appealed to most people through the ages, as a sensible way of avoiding an imminent conflict. In such cases, the potential threat of aggression is thwarted by a sudden, swift and well-planned action. The destruction of Iraqi nuclear reactor, engaged in manufacturing nuclear weapons, by an air attack by Israel in 1981 can be cited as an example in this regard. Israel's successful action was designed to remove a potential threat of nuclear warfare, possibly directed against its territory. The declaration of war by the United States on Germany in 1917, to stop the latter from mounting a massive attack on America, can be described as an extreme case of removing the source of threat through

military intervention. Mr. Woodrow Wilson, the then President of the United States had described his country's action as a "war to end war". It is indeed difficult to approve the "removing the source of threat" approach unless the action is almost universally recognised as morally justified, which is rather rare. In most cases, the preventive action is motivated either by self-deception or prejudiced thinking and amounts to aggressive intervention.

Deterrence

Another path to peace is the better known and more widely practised policy of deterrence. For decades, this policy has been followed with regard to the nuclear weapons, both by the United States and the Soviet Union. Deterrence is a contingent threat. In simpler words it means, 'if you attack me, I shall retaliate by attacking you'. The threat held out by each of the two super powers thus implies that it would destroy the other with nuclear weapons, if the other launches a major nuclear attack. The military alliances like North Atlantic Treaty Organisation (NATO), South East Asian Treaty Organisation (SEATO) etc., previously formed at the instance of the USA and the WARSAW pact, formed at the initiative of the USSR, to strengthen their military power, were part of the policy of deterrence actively pursued by the super powers. Incidentally almost all these alliances have either disintegrated or become irrelevant because of certain political compulsions or popular pressures in the alliance countries and more recently as a result of a climate of detente between the two rival super powers which we shall discuss later.

The policy of deterrence is also followed by a number of other countries whose regional political or economic interests clash and who are traditionally hostile to each other. The competitive Indian and Pakistani acquisition of high performance fighters during the 80s is one case in point.

Similarly since China possesses medium range missiles, India, through its own efforts, has developed these weapons. The success of India's integrated missile programme with *Agni* and *Prithvi* already to its credit, has prompted Pakistan to approach China for supply of these weapons. This is how the arms race continues in the world.

It is in the context of this policy of deterrence that many people quote and believe in such homilies as 'if you want peace, be prepared for war' and 'preparation for war is the best guarantee for peace'.

Deterrence may succeed in averting war for some time but the peace it promises is so brittle that it may break any time. The success of deterrence depends upon many factors. One is the belief held by the parties that there is no effective defence against the threat posed by their adversaries. Therefore, if one of the contestants comes to believe that as a result of technological advance, he has acquired an effective defence against the deadliest of weapons possessed by the other, he may feel no longer threatened and may take the fatal initiative in starting the war. Even otherwise, as a result of some misunderstanding or break-down in communications between the concerned parties, one of them may fire the first shot under the mistaken belief that the other is going to do it. History has proved time and again that preparation for war always leads to actual war. The three armed clashes that have taken place between India and Pakistan during the last 45 years, also bear a testimony to this fact.

The most serious argument against deterrence is that the condition it creates is not really peace. Deterrence may not amount to actual fighting or destruction but the threatener has got to be constantly ready to fight and he is thus in perpetual state of fear. Deterrence with nuclear weapons is based on fear of awesome destruction, which can also have serious emotional consequences for the people engaged in the policy

of active deterrence. Such a psychological climate can hardly be termed as peace.

Non-Violent Cooperation

There is another path to peace, the path of non-violent action. Non-violent action is not peaceful resistance. It is also not the weapon of a coward. It is an active and assertive approach in which the victim of aggression uses moral strength to thwart the evil designs of the aggressor. Since it is used only for purposes of defence, or for fighting injustice, it is recognised by others as the most respected justification for struggle. Resistance on one's own territory not only ensures the greatest degree of political unity at home but it also guarantees the maximum degree of respect for the struggle on the part of other countries. At times this respect has been translated into material support.

If a nation is in imminent danger of attack and decides that in the event of its territory being occupied by the aggressor, it shall make it impossible for him to continue its occupation, through a policy of absolute non-cooperation, then the aggressor may possibly be deterred from pursuing its designs. In the case of actual occupation also, the aggressor may find it almost impossible to continue it if the entire conquered nation resorts to the path of non-cooperation and civil disobedience. So far, this approach has been tried occasionally for getting an occupation vacated. This method has also been used in some countries to persuade unwilling rulers to agree to introduce desirable political and social changes. Gandhiji sought India's independence from the British rulers through a policy of non-violent non-cooperation. In North America, Martin Luther King tried this successfully to secure full equality for the blacks in that country. This approach certainly offers the prospect of significant political changes without war and without violence. Non-violent action is, therefore, being increasingly considered as one of the ways for attaining and preserving peace.

For purely defensive purposes, another school of thought recommends non-cooperation supported by violent resistance. Sabotage, guerilla warfare, demonstrations, *dharnas*, *gheraos* etc., form part of this strategy.

3. INTERNATIONAL FORUMS OF COOPERATION

Another important and time-honoured means of preventing conflicts is the preventive diplomacy. Diplomacy is, of course, used to achieve many objectives. It may be employed for increasing influence and acquiring a predominant status in an area or a region and for gaining economic or political advantages. During the present century, it has been increasingly used for resolving differences among nations and has thereby prevented possible conflicts. The United Nations organisation set up after the Second World War had been designed to provide a forum to member states for presenting their viewpoints on controversial matters affecting them and other issues of regional or international concern. One of the key institutions of the UNO is the Security Council which exists to prevent war by its capacity to marshall most of the world against the potential aggressor. The Council, however, has not proved very effective primarily because of the veto power enjoyed by its permanent members who have almost always used it to safeguard their own interests or to favour their allies, irrespective of the merits of the individual cases.

The UNO, under popular pressure, has also recommended non-cooperation and even economic sanctions against potential aggressors and others who have been guilty of blatant violation of its charter and human rights. For example, the government in South Africa which has been practising worst form of 'apartheid', has incurred the wrath of the UNO and as a result, has been politically and economically boycotted by its various agencies and large number of member states, particularly the developing

countries. The pressure thus exerted by the world community of nations has started showing some favourable results. The UNO peace keeping forces based on army personnel drawn from various countries, have often helped to prevent a conflict erupting into fighting in various parts of the world. They have acted as strong buffers between the forces of the hostile countries.

Subsequent to the establishment of UNO, a large number of UN agencies have been set up. These inter-national forums of cooperation are meant to promote peace and understanding among peoples through implementation of various programmes and activities designed to raise the economic, educational and cultural standard of the less privileged people all over the world. This has been possible through cooperative efforts in economic and other fields and liberal assistance from rich and advanced countries. These agencies include United Nations Educational, Scientific and Cultural Organisation (UNESCO), United Nations International Children's Emergency Fund (UNICEF), International Labour Organisation (ILO), Food and Agricultural Organisation (FAO), World Health Organisation (WHO) etc. The names of these agencies themselves suggest the major areas of activities with which they are concerned. Yet it would be useful to spell out briefly their objectives or major functions.

The main aims of the UNESCO are to promote literacy and raise educational standards, to exchange scientific and educational knowledge and to promote peace and security in the world* by promoting collaboration among the member-nations through the media of education, science and culture so that the people may develop, respect for the rule of law and for human rights. The agency also helps in reducing racial prejudices, gives encouragement to scientific research, promotes intellectual cooperation among artists, musicians, philosophers and suggests measures for preserving the national monuments.

The UNICEF is an inter-governmental organisation concerned with children's welfare. Its main purpose is to help countries improve the condition of their children, provide them with health care, education and vocational training and wipe out or prevent those diseases which usually affect children such as tuberculosis, diphtheria and whooping cough. It also makes foods, milk, medicines etc., available to millions of children every year. Incidentally, the agency has provided Rs. 21 crores worth of aid to India in the form of equipment for health centres, hospitals, public health laboratories, poultry and fishery farms. The UNICEF also collects money to meet the needs of children all over the world through contributions and from the sale of UNICEF greeting cards.

The main functions of ILO are to improve labour conditions, raise living standards of workers and promote their economic and social stability.

The FAO helps nations increase their food production through research and improved methods of agricultural production and continue fight against hunger and malnutrition. It also gives technical assistance relating to food and agriculture to member nations on request.

The WHO helps in the improvement of mental and physical health. Some of the programmes of the WHO concern maternal and child health, nursing, tuberculosis, malaria, sanitation etc.

For the effective discharge of their functions, all these UN agencies depend upon active cooperation and assistance from their member countries and particularly from developed and advanced countries.

Besides, there are international agencies like the World Bank, the International Monetary Fund (IMF), the International Development Association (IDA) etc., which help nations, particularly the developing countries in augmenting their meagre financial resources for their developmental

programmes, through grants and loans.

There is also an International Court of Justice which decides disputes among nations. Only countries and not individuals can bring cases before the Court. It also advises nations on matters of international law.

Apart from the UN agencies, many individual countries also practise diplomacy to resolve their disputes through negotiations, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their choice. More and more countries having common political ideologies or common perceptions of world problems or having some other common link, form associations to promote better understanding among themselves or to apply their weight in favour of an issue or a cause about which they feel equally concerned.

Non-Aligned Movement launched by more than 100 members who are not actually aligned to any of the two power blocks represented by the USA and USSR, is today a powerful force dedicated to the ideals of universal peace, freedom from colonial rule and a just economic order in the world. India had played leading role in initiating the concept at the Bandung conference held in 1955 and subsequent formalisation of the Movement at Belgrade in 1961. The Non-Aligned Movement in which India continues to play a predominant part, has been carrying on a persistent struggle against racial discrimination practised by the South African regime. The Movement is also wedded to the idea of total disarmament.

The regional associations like the European Economic Community (EEC) and nearer home, the Association of South East Asian Nations (ASEAN) and South Asian Association for Regional Cooperation (SAARC) have been formed to protect and promote the economic and other interests of their members and to seek solutions to problems outstanding

among them. The Commonwealth which consists of countries who once formed part of the British empire and now share a common belief in democratic form of government, promotes understanding and appreciation of problems of common interest and pursues policies and programmes of mutual benefit.

It is refreshing to note that the two super powers had also taken to the path of diplomacy in 70s for holding consultations for banning the use of biological and chemical weapons. They are now considering limiting the use of nuclear armaments. The partial success that their efforts have already achieved in the case of biological weapons, and the satisfactory progress that they have made in the case of chemical weapons, proves the efficacy of diplomatic methods in finding solutions to ticklish issues.

4. NUCLEAR DISARMAMENT

Disarmament as a Path to Peace and Prosperity

The various means of preventing wars that we have so far discussed, presuppose production and procurement of the deadliest of weapons. Even the path of diplomacy does not preclude the need for possession of these weapons of war, since diplomacy cannot be used in all situations and there is no guarantee that it would always succeed. Further, neither the policy of deterrence, nor of removal of source of threat to peace, nor even diplomacy can lead to a stable and universal peace. An arms race is inevitable part of pursuit of these policies. As explained earlier, as a result of development of nuclear weapons, the next war would kill millions of people immediately and would condemn millions of others to a lingering horrible death. It would also blight future generations for centuries to come.

The nuclear and other modern weapons produced with

the help of advanced technologies, are not only hideously devastating but are also prohibitively expensive. They consume enormous material, financial and manpower resources, so much so that even the wealthiest nations are obliged to cut down expenditure meant for their public utility services. It has been estimated that global military expenditure totals upto 3 billion dollars a day. 25 per cent of this amount should be enough to finance the entire Malaria eradication programme of the World Health Organisation (WHO) and even a small fraction of annual military expenditure should be enough to provide the whole world with adequate nutrition, potable water, housing and education. Similarly, the price of one Jet fighter could help to set up pharmacies in 40,000 villages. Economically, the arms race is a heavy drain on financial resources of all nations.

The plight of the developing countries is far worse. Some of them spend more on armaments than on health care, education and welfare put together. It is really unfortunate that as a result of diversion of sizable funds to procurement of arms, many countries in the third world have not been able to raise substantially the living standards of their people. As a result of this, unaccountable deaths are resulting from malnutrition and diseases. Untold misery in these countries directly results from the diversion of resources from developmental activities to procurement of arms. If these countries are assured of stable peace or security, millions suffering from poverty, ill-health and illiteracy in these countries could be helped to improve their deplorable living conditions.

It is thus clear that the arms race is disastrous for developing as well as other countries. It creates a direct threat to life and health of people and sharply retards the pace of peaceful development in countries of Asia, Africa and Latin America. Ending the arms race and achieving a complete prohibition of nuclear, chemical and other types of weapons of

mass destruction can make substantial contribution towards durable peace, and hence these are the most vital problems facing humanity today.

We have already mentioned about the success of diplomatic efforts made by the two super powers in outlawing the production and use of biological and chemical weapons. The bacteriological war has since been completely banned and a solution to the question of destruction of chemical weapons appears to be round the corner. The most ticklish problem that remains to be solved is the control of nuclear weapons. In view of their vast potential for mass and indiscriminate destruction, they have received maximum attention during the last few decades. Mutual consultations between the USA and the Soviet Union in this regard have also yielded certain notable achievements. The nuclear weapon tests in the atmosphere, outer space and sea bed, have since been banned. Since 1970 the Soviet Union and the United States have also been engaged in holding Strategic Arms Limitation Talks (SALT) with a view to limiting the number of offensive nuclear weapons to be produced and possessed by the two countries but and they have started producing some tangible results.

A more notable development was the conclusion of Non-Proliferation Treaty in 1968, which was aimed at preventing development of nuclear weapons by the countries other than those who already possessed them. This appeared patently unfair to some countries including India who felt that they had a right to develop the nuclear capability, by way of deterrence, as long as the threat of nuclear war existed, and their potential adversaries were in a position to develop or procure such weapons. It is on these grounds that India has justified the successful launching of surface-to-surface missiles like *Agni* in 1988 and *Prithvi* in 1989 which are capable of carrying nuclear warheads. India has of course repeatedly declared that it is committed to use its nuclear capability exclusively for

peaceful purposes. In this connection, it would be relevant to mention that the four Nuclear Reactors that India has been able to install in some states are being used for generating electricity.

The real issue has been the total ban on production and use of nuclear weapons and the destruction of about 50,000 nuclear war-heads, mostly in possession of the two super powers. The prospects of any favourable development in this regard appeared quite bleak 4-5 years ago. The situation, however, changed with the emergence of M. Gorbachov at the helm of affairs in the Soviet Union, who introduced policy of liberalisation, popularly known as Glasnost. In the field of nuclear disarmament, he has made the most dramatic and worthwhile contribution. Under his leadership, the Soviet Union has recently announced substantial cuts in its military forces. As a result, there has been development of detente and mutual confidence between the two super powers. This has been strengthened by an increasing urge for peace among those European countries who have been close allies of USA and considered the USSR as their potential enemy. A progressive process of liberalisation and even of democratisation in the countries belonging to the Soviet Communist block has also helped in easing the situation. As a result, there is a distinct possibility of an agreement being concluded between the two traditional rivals regarding the gradual destruction of nuclear warheads possessed by them. These developments have also blunted the sharper edge of the defence alliances like NATO and WARSAW PACT formed at the instance of the USA and the USSR respectively.

5. REMOVAL OF FUNDAMENTAL CAUSES OF WAR

Earlier we have mentioned certain developments relating to ban on biological and chemical weapons and reduction in nuclear armaments. These are welcome developments as they

have promoted a sense of peace and security among the people all over the world. But the goal of a complete nuclear disarmament is still a far cry. Even if it becomes possible to achieve this objective in foreseeable future, it may not be possible to usher in an era of true and lasting peace. The dream of permanent and universal peace can be realised only if we succeed in removing or at least minimising the underlying causes of war. They are as under :

1. Racial and Religious Intolerance

Deeply felt racial and religious hatred has been the basic cause of wars. It is a well-known fact that most terrible wars, particularly those fought in Europe, were based on racial and religious intolerance and hostility. In the modern age, several wars in Africa, between Israel and Arab States, India and Pakistan and the bloodiest of them all, between Iran and Iraq had no doubt traditional rivalries and border disputes as their immediate causes, but an analysis of their depth, duration and frequency reveals that to a greater or lesser degree, the racial/religious hatred and bitterness were the root causes of these wars.

2. Economic Injustice

Economic injustice is another important factor that causes tension and strife which lead to war. Many developing countries justifiably feel that they have been victims of economic exploitation by the capitalist and imperialist powers and their present economic plight is the direct result of this exploitation. They, therefore, insist on a new international economic order in which there would be more equitable distribution of wealth among various nations. Actually, it is hard to imagine a state of peace on the planet when the vast majority of people remain in a condition of chronic poverty and under-nourishment while the minority is enjoying flourishing economy. In the words of Wily Brandt, an

erstwhile Chancellor of Germany, "While hunger rules, peace cannot prevail. He who wants to ban war, must also ban mass poverty".

3. Violation of Human Rights and Disregard of Ethical Values

Violation of human rights and disregard of ethical and basic human values is another cause of unrest and conflict in the world. It was the brutal massacre of millions of human beings in concentration camps before and during the Second World War that caused untold misery and bitterness and led the UNO to specify rights of people as individuals and as nations. The Universal Declaration of Human Rights in 1948 by that organisation, inter-alia stipulates that "all peoples have the right of self-determination by virtue of which they can freely determine their system of government and handle their wealth and natural resources. Each individual has the freedom to enjoy his economic, social and cultural rights and also civil and political rights. He has also the right to life and security, to education and adequate standard of living".

It is the denial and violation of these rights of individuals and nations which create conditions for conflicts, clashes and wars. There has thus been a growing conviction in the world that observance of human rights and the preservation of peace and international security are closely inter-linked.

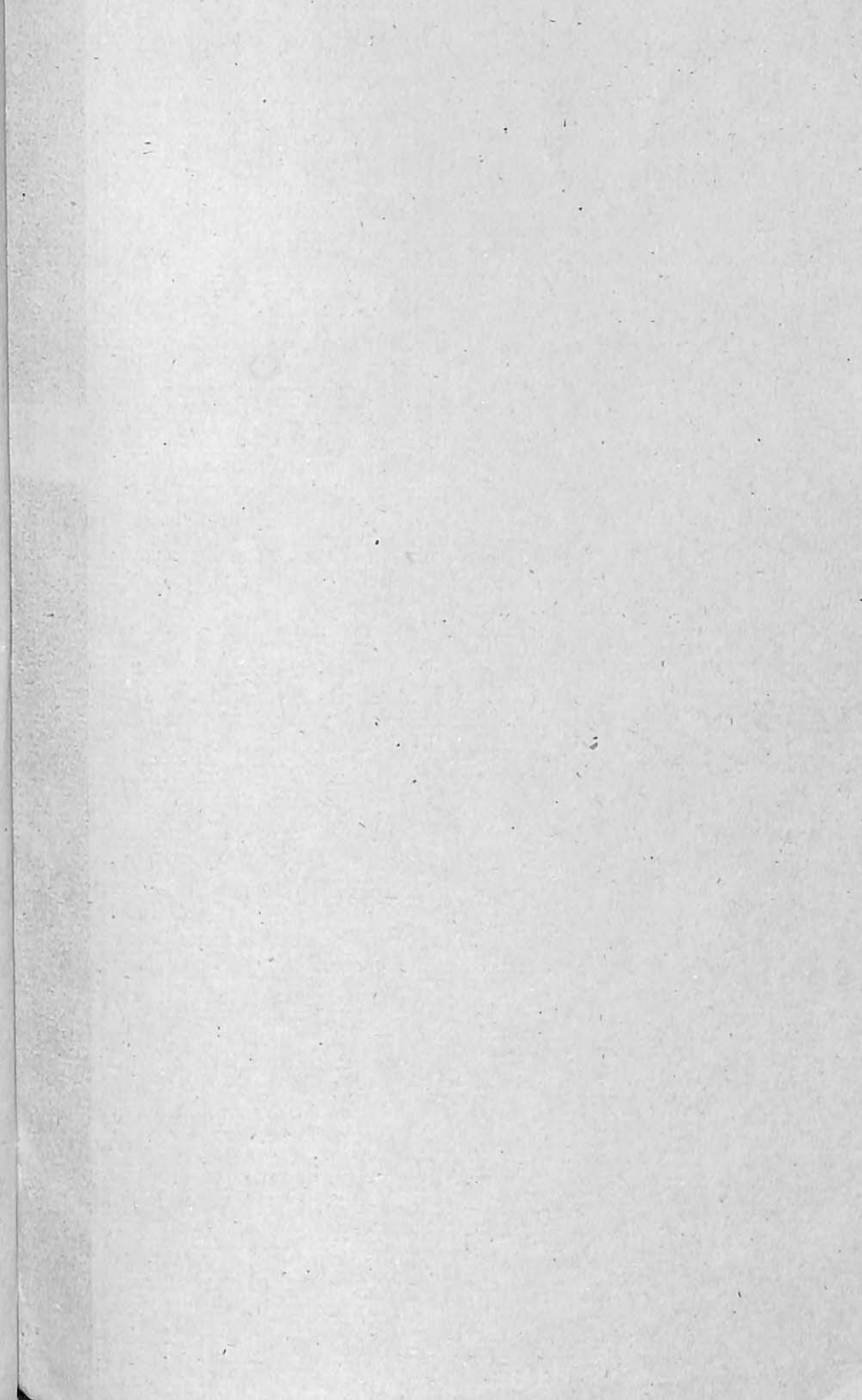
It is indeed ironical that the people who fight in the name of religion, are guilty of violation of the fundamentals of their religion since no religion favours hatred and violence as solution to any problem. All religions lay great stress on inculcation of such ethical values as love and consideration for others. If despite this, the nations engaged in war proclaim that they are fighting for the cause of righteousness and truth against forces of evil and darkness, they are more often than not, hypocrites. Wars are actually a temporary break-down of civilised values and as stated elsewhere in this book, truth is

almost always the first casualty in a war. Nothing can be more unethical or immoral to murder millions of innocent men, women and children and to condemn millions of others to lingering and painful death through the use of nuclear and other weapons of mass destruction.

Education for Peace

We have earlier referred to the Roman saying "if you desire peace, prepare for war". We have also explained the futility of such an action since neither preventive war nor deterrence offer a promise of durable peace. We, therefore, need a different maxim—"if you desire peace, educate for peace". The preamble to UNESCO's Constitution states, "since wars are born in the minds of men, it is in the minds of men that the defences of peace must be constructed". And changing the minds of men is an area where education can play a most significant role. Generally, our failure to understand and appreciate the view point of others, stands in the way of objective assessment of men and matters, developments and situations, and religious and political beliefs of other people. Racial discrimination, religious fanaticism and aggressive nationalism which are responsible for so much tension and strife in the world, are based on irrational premises that certain races and nations are inherently superior to others and are therefore destined to dominate over them. What we need, therefore, is a scientific attitude of mind which can be developed by right type of education. Education helps us to view all aspects of a problem in a dispassionate manner, to discriminate between right and wrong and be courageous enough to stand by our convictions. Education thus builds up slowly but surely, defences of peace in our minds.

It would be relevant to mention here some of the basic principles, according to which the UNO expects all the nations to regulate their relations and which if followed scrupulously



ABOUT THE BOOK

The book contains a comprehensive analysis of some topical issues which have been included in the syllabi prescribed by the Central Board of Secondary Education for the senior secondary classes. National unity, secularism, population problems, protection of environment, eradication of illiteracy, improvement of the less privileged sections of society including depressed classes and women, development of scientific temper, removal of superstitions, basic features of our Constitution and landmarks of our freedom struggle are some of the important issues with which the progress and future prosperity of our nation is closely linked. Their study should help the young readers to understand and appreciate them in proper perspective and possibly enable them to seek their viable and more durable solutions, in the years to come.

Though the book is primarily meant for senior secondary students, its study should also prove useful for those preparing for competitive examinations and general readers.

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H.L. Luthra, who started his career as a lecturer, rose to the position of Principal of Government Degree College, Port Blair. Subsequently he held senior positions in the Ministry of Human Resource Development and retired as Joint Director, National Book Trust.

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